



CITY OF SOUTH ST. PAUL MEETING AGENDA

ECONOMIC DEVELOPMENT AUTHORITY

Council Chambers
125 3rd Avenue North
South St. Paul, MN 55075

Monday, November 3, 2025

IMMEDIATELY FOLLOWING THE CONCLUSION OF THE 7:00 P.M. MEETING OF THE CITY
COUNCIL

1. CALL TO ORDER

2. ROLL CALL

3. APPROVAL OF AGENDA

4. CONSENT AGENDA:

All items listed on the Consent Agenda are items, which are considered routine by the City Council and will be approved by one motion. There will be no separate discussion of these items unless a Council member or citizens requests, in which case the item will be removed from the consent agenda and considered at the end of the Consent Agenda.

A. EDA Meeting Minutes of October 6th, 2025.

B. Approve Proposals related to Petroleum Tank Removal at 417 Concord Street North

C. Approve Proposal for Building Demolition at 417 Concord Street North

5. GENERAL BUSINESS:

A. Approve Proposal for Deconstruction of Gatehouse Structures at Armour Avenue / Hardman Avenue and Retention of Remnant Masonry Elements

6. ITEMS FOR FUTURE FOLLOW-UP:

General communications of the President and Commissioners are provided and may be considered for inclusion on a future agenda. There will be no discussion or decisions made related to these items at this meeting.

7. ADJOURNMENT



ECONOMIC DEVELOPMENT AUTHORITY AGENDA REPORT

DATE: November 3, 2025
DEPARTMENT: City Clerk
PREPARED BY: Deanna Werner
AGENDA ITEM NUMBER: 4.A.

MEETING TYPE

Regular Meeting

AGENDA ITEM

EDA Meeting Minutes of October 6th, 2025.

ACTION TO BE CONSIDERED OR DESIRED OUTCOME

Approve as presented by consent.

OVERVIEW

Approval of meeting minutes for the EDA Meeting held on Monday, October 6th, 2025.

SOURCE OF FUNDS

N/A

ATTACHMENTS

1. 10-06-2025 EDA Minutes (1)



SOUTH ST. PAUL ECONOMIC DEVELOPMENT AUTHORITY MINUTES OF OCTOBER 6, 2025

1. CALL TO ORDER

President Jimmy Francis called the regular meeting of the City of South St. Paul Economic Development Authority to order at 8:20 PM on Monday, October 6, 2025.

2. ROLL CALL

Present: Jimmy Francis, Lori Hansen, Pam Bakken, Todd Podgorski, Matt Thompson, Joe Kaliszewski

Absent: Tom Seaberg

Staff Present: Ryan Garcia, Executive Director/City Administrator, Deanna Werner, Kori Land

3. APPROVAL OF AGENDA

4. CONSENT AGENDA:

All items listed on the Consent Agenda are items, which are considered routine by the City Council and will be approved by one motion. There will be no separate discussion of these items unless a Council member or citizens requests, in which case the item will be removed from the consent agenda and considered at the end of the Consent Agenda.

A. EDA Meeting Minutes for September 2, 2025, and Special Meeting Minutes for September 15, 2025.

B. Mortgage Satisfaction, Applicant #1027

C. Approve Amendment #2 to Preliminary Development Agreement with ZAS, LLC

Moved by: Joe Kaliszewski / Matt Thompson

Moved: To approve Consent Agenda as presented.

Vote: 6 ayes / 0 nays, motion Passed

5. GENERAL BUSINESS:

A. Approval of Subgrant Agreements for the Wakota Industrial Project

Moved by: Joe Kaliszewski / Lori Hansen

Moved: To approve Resolution 2025-020 and 2025-021, Approval of Subgrant Agreements for the Wakota Industrial Project

Vote: 6 ayes / 0 nays, motion Passed

6. ITEMS FOR FUTURE FOLLOW-UP:

General communications of the President and Commissioners are provided and may be considered for inclusion on a future agenda. There will be no discussion or decisions made related to these items at this meeting.

7. ADJOURNMENT

Moved by: Pam Bakken / Lori Hansen

Moved: To adjourn.

Vote: 6 ayes / 0 nays, motion Passed

The meeting was adjourned at 8:32 PM.

A handwritten signature in cursive script that reads "Deanna Werner". The signature is written in dark ink and is positioned above a horizontal line.

/s/: Deanna Werner
City Clerk



ECONOMIC DEVELOPMENT AUTHORITY AGENDA REPORT

DATE: November 3, 2025
DEPARTMENT: Economic Development
PREPARED BY: Ryan Garcia
AGENDA ITEM NUMBER: 4.B.

MEETING TYPE

Regular Meeting

AGENDA ITEM

Approve Proposals related to Petroleum Tank Removal at 417 Concord Street North

ACTION TO BE CONSIDERED OR DESIRED OUTCOME

Through consent, motion to accept proposals from MidAmerica Technical & Environmental Services, Inc., Landmark Environmental, LLC and Carl Bolander and Sons, Inc. for Gas Station Decommissioning at 417 Concord Street North and authorize the execution of proposals to complete the work.

OVERVIEW

In late September 2025, the EDA closed on the acquisition of the commercial property at 417 Concord Street North, the former "Jiffy Gas" retail gas station that had been inactive for about five years prior to our acquisition. As the EDA has no intention of positioning the property for future use as a retail gas station, Staff recommends that remnant fueling infrastructure be safely removed from the property in accordance with Minnesota Pollution Control Agency standards. To this end, we have solicited proposals for this work and are prepared to recommend authorization to execute the following proposals:

- [MidAmerica Technical & Environmental Services, Inc.](#) (\$9,371.25) - MidAmerica completes the cutting, cleaning, and removal oversight associated with the two existing 10,000-gallon underground gasoline storage tanks, associated equipment and lines at the site.
- [Landmark Environmental, LLC](#) (\$5,240) - Landmark previously completed the Phase I Environmental Assessment and Phase II Environmental Investigations at the site, and for the tank removal project will provide project management and coordination with the MPCA, provide field oversight during the removal, additional required soil sampling in the UST basins, and prepare all reports required for MPCA approval.
- [Carl Bolander & Sons](#) (\$10,360.75) - performs the tank excavation and removal, including backfilling of tank voids and top dressing of the site with recycled gravel.

SOURCE OF FUNDS

Concord Street Tax Increment Finance Fund (40490). The total decommissioning project cost of

\$24,972 is considered a "Micro Purchase" under the City's purchasing policy.

ATTACHMENTS

1. Petroleum Tank Removal - Landmark Proposal
2. Petroleum Tank Removal - MidAmerica Proposal
3. Petroleum Tank Removal - Bolander Proposal



Landmark Environmental, LLC

9555 James Ave S, Suite 262

Bloomington, MN 55431

Phone: 952-295-9400

October 16, 2025

www.landmarkenv.com

Mr. Ryan Garcia
City Administrator
City of South St. Paul
125 3rd Avenue North
South St. Paul, MN 55075

*Landmark is proud to be an Affirmative
Action, Equal Opportunity Employer*

**Re: Proposal for Environmental Services During Gas Station Decommissioning
417 North Concord Street in South St. Paul, Minnesota**

Dear Mr. Garcia:

Landmark Environmental, LLC (Landmark) appreciates the opportunity to provide environmental services (Services) to the City of South St. Paul Economic Development Agency (Client) regarding the above-referenced property (Property). The Services involve oversight and sampling during the decommissioning of the former Jiffy Express gas station located at 417 North Concord Street in South St. Paul, Minnesota. The Property is currently vacant and has operated as a gas station since the 1960s. According to Minnesota Pollution Control Agency (MPCA) information, the MPCA issued a LEAK Site Closure letter (LEAK00002393), dated August 31, 2000, for the historical petroleum impacts to soil and groundwater.

Landmark understands that the Property is currently vacant, that there are two 10,000-gallon capacity gasoline underground storage tanks (USTs), associated dispensers and supply lines present at the Property, and that the Client has contracted with MidAmerica to oversee the removal of these structures. Although the MPCA issued a LEAK Site Closure letter for the Property, petroleum impacts to soil and groundwater remain. As such, Landmark will complete the scope of work under the assumption that petroleum impacts will be encountered during the removal of the USTs, dispensers and supply lines, but that an additional petroleum release *has not* occurred so that no additional soil samples will be required. The scope of work listed below will be completed according to the MPCA Petroleum Remediation Program guidance documents and the Minnesota Department of Commerce Petrofund (Petrofund) guidelines. In the event that a new petroleum release is identified, the Client will be eligible for MPCA assurance letters and Petrofund reimbursement, as necessary. Landmark will not proceed with additional environmental Services without prior approval from the Client.

Proposed Scope of Work

The scope of work includes the following tasks, and each task is detailed below:

- Landmark will provide project management services including communication with the Client, the MPCA and the Client's contractors, as necessary.
- Prior to conducting fieldwork, Landmark will prepare a Site Safety Plan (SSP) for all Landmark work during the field effort and coordinate with MidAmerica, who will be responsible for the required utility locate.

- Landmark will provide field oversight during the removal of the USTs, dispensers and supply lines. Soil samples will be collected above, surrounding and beneath the USTs, dispensers and supply lines for field screening and laboratory analysis, as per MPCA guidance. This task also involves preparing field documents and describing excavation logs and field screening results.
- Landmark will prepare a summary letter report documenting field activities.

Site Safety Plan Preparation

Landmark will prepare a SSP in accordance with the provisions of 29 CFR 1910.120, Hazardous Waste Operations and Emergency Response and as required by the MPCA. A field copy of the SSP will be present at the Property during all on-site activities conducted by Landmark staff. The SSP applies to all on-site Landmark staff who participate in field activities.

Oversight and Sampling During Removal of the USTs, Dispensers and Supply Lines

A Landmark representative will be on-site during the removal of the USTs, dispensers and supply lines for inspection, excavation oversight, and soil sampling. According to MidAmerica, removal activities will be completed in two days. Landmark will complete the necessary field screening and soil sampling and will coordinate our schedule with MidAmerica to minimize the amount of Landmark time with the field effort. Landmark estimates that two 8-hour days will be required for the oversight and sampling work. If unexpected petroleum impacted soil is encountered, Landmark will contact the Client immediately and discuss the necessary scope and associated costs prior to completing the work.

Landmark will collect soil samples from the sidewalls and floor of the UST basin in accordance with the MPCA Petroleum Remediation Program's guidance document, *Soil Sample Collection and Analysis Procedures* (Guidance Document 4-04), dated May 2024. All soil samples will be inspected in the field for the presence of observable contamination (i.e., organic vapor headspace concentrations with a photoionization detector [PID], presence of discoloration, odor, or sheen). Soil samples will be classified, screened and logged in the field. In accordance with MPCA Guidance Document 3-01, *Excavation of petroleum-contaminated soil and tank removal sampling*, dated May 2024. As such, Landmark plans to collect two soil samples beneath each of the two gasoline UST (4 samples), one sample beneath each of the three dispenser islands (3 samples), and three samples beneath the supply lines for fixed-based laboratory analysis of gasoline range organics (GRO) and volatile organic compounds (VOCs) at Eurofins Test America (Eurofins).

Reporting and Project Management

Upon completion of the fieldwork and following receipt of the analytical results, Landmark will prepare a summary letter for review by the Client documenting the field activities and observations. In the event the field screening results indicate a new petroleum release has occurred during the removal of the UST, dispensers or supply lines, Landmark will prepare MPCA Guidance Document 3-02, *General Excavation Report Worksheet* per MPCA guidelines. For purposes of this proposal, Landmark assumes that the Worksheet will not be necessary. Any required UST removal documentation to be submitted to the MPCA will be completed by Bolander.

Landmark staff anticipates minimal project management costs for this scope of work. However, Landmark will communicate with the Client and other parties involved in the project, including the MPCA. In addition, if a new petroleum release has occurred, Landmark will make every effort to remove all petroleum impacted soil so that no additional environmental work is required prior to the Property redevelopment.

Schedule

Landmark will begin work on the project immediately upon receiving authorization from the Client and will coordinate with MidAmerica. The laboratory data should be available in approximately 10 days following the field work and we will prepare a summary letter report within 8 days of receiving final analytical data.

Costs

Estimated costs for completing the proposed scope of work are listed in the following table. Fees and expenses will not exceed **\$5,240** without Client's prior approval. Any out-of-scope services requested by the Client will be provided on a time and materials basis. A copy of our standard billing expense and equipment rates will be provided to the Client upon request.

Task	Landmark	Subcontractor Costs and Expenses	Total
Prepare SSP	\$200	\$0	\$200
Field Oversight During UST Removal	\$1,840	\$400 (Field Equipment, mileage)	\$2,240
Laboratory	\$0	\$1,150 (Eurofins)	\$1,150
Review Data and Prepare Letter Report	\$1,200	\$0	\$1,200
Project Management	\$450	\$0	\$450
Total	\$3,690	\$1,550	\$5,240

Conditions

Landmark will conduct the proposed scope of work in a manner consistent with prevailing professional standards and in accordance with the attached Standard Terms. Landmark will maintain required insurance coverage during the project. A copy of our certificate of insurance will be provided to the Client upon request. If this Proposal is acceptable, please sign in the space provided below and return a copy to me. Thank you for the opportunity to provide environmental assistance on this project. Please contact me with any questions or comments at jmullin@landmarkenv.com or at 952-295-9403.

Sincerely,



Jerry Mullin
 Landmark Environmental, LLC

Acceptance:

Client Signature: _____ Date: _____

LANDMARK ENVIRONMENTAL, LLC STANDARD TERMS—PROFESSIONAL SERVICES

Our Agreement consists of the accompanying letter or other authorization and these Standard Terms.

Section 1:

Our Responsibilities

- 1.1 We agree to provide the professional services described in our written agreement with you. In performing our services, we will use that degree of care and skill ordinarily exercised under similar circumstances by reputable members of our profession practicing in the same locality.
- 1.2 We will select means, methods, techniques, sequences, or procedures used in providing our services. If you direct us to deviate from our chosen protocols, you agree to hold us harmless from all claims, damages, and expenses arising out of your direction.
- 1.3 We will acquire all licenses applicable to our professional services and we will comply with applicable law.
- 1.4 Our duties do not include supervising your contractors or commenting on, supervising, or providing the means and methods of their work unless we accept those duties in writing. We will not be responsible for the failure of your contractors to perform in accordance with their undertakings, and the providing of our services will not relieve others of their responsibilities to you or to others.
- 1.5 We provide a health and safety program for our employees, but we will not be responsible for contractor, job, or site health or safety unless we accept that duty in writing.
- 1.6 Our estimates of construction or other costs will be based on the information available to us and on our experience and knowledge. Such estimates are an exercise of our professional judgment and are not guaranteed or warranted.
- 1.7 Your confidential documents and information provided to us by you will be maintained in confidence except as required by law.
- 1.8 If Services are identified in the Scope as being subject to the terms of the Prime Agreement with your Client, then the Prime Agreement shall apply to our Services and obligations. If you have provided copies of applicable portions of the Prime Agreement to the us, then we shall be fully obligated to you, for all the same obligations, duties, and responsibilities that are within our Scope that you have assumed toward or is obligated to, your Client under the terms and conditions of the Prime Agreement.

Section 2:

Your Responsibilities

- 2.1 You agree to provide access to the project site, and will arrange for access to other property as required for us to provide our services.
- 2.2 You agree to provide us with all your information, plans and changes in plans, and new information that may materially affect the delivery of our services. You agree to hold us harmless from all claims, damages, losses, and related expenses involving information of which you had knowledge but did not timely call to our attention or correctly show on plans furnished to us.

- 2.3 You agree to provide us with emergency procedure information and to provide information on hazardous substances/processes we may encounter in the work but only to the extent such substances/processes are provided/caused by you or for which you have been notified in writing by others.
- 2.4 Our written agreement with you and the services we provide will not cause us to be an owner, operator, generator, transporter, treater, storer, or a disposal facility within the meaning of the Resource Conservation Recovery Act, as amended, or within the meaning of any other law governing the handling, treatment, storage, or disposal of hazardous materials. You agree to hold us harmless and indemnify us from any such claim or loss.
- 2.5 Investigation and remediation services may involve risk of cross-contamination of previously uncontaminated air, soil, and water. If you are requesting that we provide services that include this risk, you agree to hold us harmless and indemnify us from cross-contamination claims and damages, unless the loss is caused by our negligence.
- 2.6 You agree to make disclosures required by law. If we are required by law or legal process to make such disclosures, you agree to hold us harmless and indemnify us from all related claims and costs. We will give such advance notice of legal compulsion as is practical so that you may take steps to protect your interests.

Section 3:

Reports and Records

- 3.1 We will retain analytical data for seven years and financial data for three years relating to the services performed.
- 3.2 Monitoring wells installed as part of our services are your property and you are responsible for their permitting, maintenance and abandonment unless we accept that duty in writing. All samples remaining after tests are conducted and field and laboratory equipment that cannot be adequately cleansed of contaminants are your property. They will be discarded or returned to you, at our discretion, unless within 15 days of the report date you give written direction to store or transfer the materials, at your expense.
- 3.3 Our reports, notes, calculations, and other written or electronic documents are instruments of our service to you. Our reports may be used only for the purposes disclosed to us, which includes use by us and our client in preparing construction document; furnishing reports to bidders and contractors for their reference in completing the work; and use by City of South St. Paul for any other reasonable purpose associated with the project or identified in the scope. You may not use or transfer our reports to others for a purpose for which they were not prepared without our written approval, which will not be unreasonably withheld. You agree to indemnify us from loss caused by any other use of the documents.
- 3.4 If you do not pay for our services as agreed, we may retain all reports and work not yet delivered to you and you agree to return all our reports and other work in your possession to us.

Section 4:
Compensation

- 4.1 You agree to pay for services as agreed upon or according to our then current fee schedules if there is no other written agreement as to price. An estimated cost is not a firm figure unless stated as such.
- 4.2 You agree to notify us of billing disputes within 15 days and to pay all undisputed portions of invoices within 10 days of receipt of payment to you from your client of your invoices that included our services. For balances not paid under these terms, you agree to pay interest on unpaid balances beginning 10 days after invoice due date at the rate of 1.5% per month, but not to exceed the maximum rate allowed by law.
- 4.3 If you direct us to invoice another, we will do so, but you agree to be responsible for our compensation unless you provide us with that person's written acceptance of all terms of our agreement and we agree to extend credit to that person.
- 4.4 You agree to compensate us for our reasonable fees and expenses if we are required to respond to legal process arising out of a proceeding to which we are not a party.
- 4.5 If we are delayed by factors beyond our control, or if the project conditions or the scope or amount of work change, or if the standards or methods change, we will give you timely notice and we will receive an equitable adjustment of our compensation.

Section 5:
Disputes, Damage, and Risk Allocation

- 5.1 Disputes other than collection matters will be submitted to Alternative Dispute Resolution (ADR) as a condition precedent to litigation. Each of us will exercise good faith efforts to resolve disputes through a mutually acceptable ADR procedure. The law of the state in which the project site is located will govern all disputes.
- 5.2 Each party will not be liable to the other for special, incidental, consequential, or punitive damages, including but not limited to those arising from delay, loss of use, loss of profits or revenue, loss of financing commitments or fees, or the cost of capital, except for such damages included as part of an indemnification obligation TO OTHERS, including your client. Neither party's employees shall be personally liable to the other party.
- 5.3 If you fail to pay us within 60 days following invoice date, we may consider the default a total breach of our Agreement and, at our option, we may terminate all of our duties without liability to you or to others.

Section 6:

General Indemnification

- 6.1 We will indemnify and hold you harmless from and against demands, damages, and expenses caused by our negligent acts and omissions, and breach of contract and those acts, omissions, and breaches of persons for whom we are legally responsible. You will indemnify and hold us harmless from and against demands, damages, and expenses caused by your negligent acts and omissions, or breach of contract and those acts, omissions, and breaches of persons for whom you are legally responsible.

Section 7:

Miscellaneous Provisions

- 7.1 We will provide a certificate of insurance to you upon request.
- 7.2 This Agreement is our entire agreement, and it supersedes all prior agreements. Only a writing signed by both of us making specific reference to the provision modified may modify it.
- 7.3 Neither of us will assign this Agreement without the written approval of the other.
- 7.4 A written notice may terminate this Agreement. We will receive an equitable adjustment of our compensation if our work is terminated prior to completion as well as our fees and expenses on the basis agreed upon through the effective date of termination.
- 7.5 We will not discriminate against any employee or applicant for employment because of race, color, creed, ancestry, national origin, sex, religion, age, marital status, affectional preference, disability, status with regard to public assistance, membership or activity in a local human-rights commission, or status as a specially disabled, Vietnam-era, or other eligible veteran. We will take affirmative action to ensure that applicants are considered, and employees are treated during their employment, without regard to those factors. Our actions will include, but are not limited to notifications, hiring, promotion or employment upgrading, demotion, transfer, recruitment or recruitment advertising, layoffs or terminations, rates of pay and other forms of compensation, and selection for training or apprenticeship.



October 6, 2025

Mr. Ryan Garcia
City of South St. Paul
125 3rd Avenue N
South St. Paul, MN 55075

Re: Cutting, Cleaning & Removal Oversight of Two 10,000-Gallon Underground Storage Tanks (USTs)
Former Jiffy Express River Country Coop, 417 North Concord Street, South St. Paul, Minnesota

Dear Mr. Garcia:

MidAmerica Technical & Environmental Services, Inc. (MidAmerica) is pleased to provide a work scope and cost schedule for the cutting, cleaning and removal oversight associated with Two 10,000-gallon Single Wall STI-P3 Gasoline USTs, associated equipment and lines at the above referenced site in South St. Paul, Minnesota.

MidAmerica understands that Bolander will perform all Demolition, Excavation, Backfilling, Compaction, Site Restoration and Tanks Recycling and that Landmark Environmental will perform Soil Sampling beneath the USTs and Pump Islands directly for the City of South St. Paul at No Cost to MidAmerica.

SCOPE OF WORK—USTS CUTTING, CLEANING & REMOVAL OVERSIGHT

The scope of work we propose to perform on this project consists of the following items:

- Collect and evaluate background information in order to prepare a work plan and a site safety plan.
- Obtain permits from the Local Inspection Department for the removal of the USTs. MidAmerica will also notify the MPCA for the removal of the UST 10 days prior to the start of work.
- **Bolander** to Contact Gopher State One Call to clear Public Utilities and consult with owner to clear Private Utilities in the work area prior to excavating.
- Utilizing a Vacuum Unit, MidAmerica will remove the existing materials from the USTs to the Three (3) Dispensers. The Vacuum Unit will be grounded during all pumping procedures.
- The tanks will be inerted with Dry Ice and/or purged according to API guidelines. A 4-gas monitor will be utilized to confirm atmospheric levels prior to and during tank cutting and cleaning procedures.
- Upon uncovering the blacktop, concrete and soil over the top of the USTs **by Bolander**, if no manways are present, MidAmerica will cut an access hole into the top of the USTs for confined space entry tank cleaning and subsequent removal.
- A confined space permit will be prepared prior to any confined space entry activities. A four-gas monitor will be utilized to confirm atmospheric levels for workers' protection prior to and during confined space entry procedures during tank cleaning activities. During all Confined Space Entry work, a primary and secondary access and retrieval system will be in place and utilized including a Tripod Emergency Recovery Unit. Confined Space procedures will be performed according to OSHA guidelines. MidAmerica personnel are 40-hour

Bringing technical expertise to your environmental needs.

Cutting, Cleaning & Removal Oversight of Two 10,000-Gallon USTs
Former Jiffy Express River Country Coop, 417 North Concord Street, South St. Paul, Minnesota

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Hazardous Materials, Confined Space Entry Certified, and Confined Space Rescue Trained and Certified. A confined space air diffuser will be utilized for air exchanges during the tank cleaning activities.

- Personal Protective Equipment (PPE) utilized for tank cleaning will consist of Level C Full Face Respirators with Organic Cartridges, Saranex Suits, Nitrile Inner with PVC Exterior Gloves, and Haz Mat Boots.
- All remaining sludge and solids in the USTs will be removed during the confined space entry tank cleaning utilizing the Vacuum Unit. The materials will be transported and processed under a non-hazardous Bill of Lading verifying actual quantities processed and location of processing for your records.
- Following Tank Cleaning procedures, the USTs and associated Piping/Equipment will be excavated and removed **by Bolander**. The cleaned Steel UST will be loaded, hauled and recycled **by Bolander**. MidAmerica will prepare a letter to certify that the tank has been cleaned according to API guidelines including our MPCA Contractor License number as well as our MPCA Site Supervisor License number.
- **Landmark** will collect one soil sample 2 feet below each end of each UST for field screening and fixed laboratory analysis. The soils below the Gasoline USTs will be sampled and analyzed for Gasoline Range Organics (GRO) & Benzene, Toluene, Ethylbenzene and Xylene (BTEX). **Landmark** will collect one soil sample 4-feet below each Dispenser location for field screening and fixed laboratory analysis. The soils below the Dispensers will also be sampled and analyzed for GRO & BTEX. Soil sampling below the USTs and Dispenser Island locations are required by the Minnesota Pollution Control Agency (MPCA).
- The former tank basin will be backfilled to grade in one-foot lifts with clean fill and compacted to grade level **by Bolander**.
- If contaminated soils are encountered, **Landmark** will perform the soil removal oversight. This includes waste profiling, manifesting, and transportation to an approved industrial waste landfill and reporting to local/state agencies.
- MidAmerica will prepare and provide the Notification/Change of Status Forms for the MPCA, a copy of the City of South St. Paul Permits, copies of the Bill of Ladings for all waste, product and materials processed.

COST SCHEDULE

Cutting, Cleaning & Removal Oversight of Two 10,000-Gallon #2 Fuel Oil USTs

Mobilization/Preparation/Demobilization (4 men, 2 hours each @ \$95/hour/man)	\$ 760.00
Travel Time (4 men, 1 hours each @ \$95/hour/man)	380.00
Site Work (4 men, 9 hours each @ \$115/hour/man)	4,140.00
800-Gallon Mobile Vacuum Unit – Includes Fuel (1 day @ \$400 day)	400.00
Personal Protective Equipment (Gloves, Boots, Suits & Respirators) (4 men, 1 day @ \$70/day/man)	280.00
Confined Space Entry & Retrieval Equipment, Explosion & Oxygen Meters (1 day @ \$350/day)	350.00
Job Box (Blowers, Absorbents & Hand/Power Tools, Blades, Poly, Lights, etc.)	200.00
Dry Ice to Inert the USTs (350 pounds @ \$3.00/pound)	1,050.00
Trucks, Trailers & Fuel Charges (2 Units @ \$100/unit)	200.00
City of South St. Paul Permits (\$75.00 X 15% mark-up fee)	86.25

Cutting, Cleaning & Removal Oversight of Two 10,000-Gallon USTs
Former Jiffy Express River Country Coop, 417 North Concord Street, South St. Paul, Minnesota

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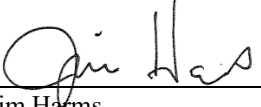
Materials/Waste Processing (Gasoline Liquids, Sludge & Solids, Absorbents, PPE and Poly)	900.00
Soil Sampling, Screening, Laboratory Analysis & Report Writing	by Landmark
Excavation & Removal of UST & Associated Piping	by Bolander
Backfilling/Compaction	by Bolander
Loading, Hauling & Recycling of Cleaned UST & Associated Piping	by Bolander
All Site Restorations	by Bolander
Project Management/Start-up, MPCA Forms, Permitting & Certification Letters (5 hours @ \$125/hours)	625.00
*Lump Sum Total	\$ 9,371.25

***Note: MidAmerica Excludes the Following:**

- Excavating, Backfill, Backfilling, Compaction, Tank Transportation and Recycling, Soil and/or Groundwater Sampling and Analysis, Contaminated Soil and/or Groundwater Removal or Disposal, Public or Private Utility Locates or Relocates, Electrical Disconnects, and Site Restoration.
- Union and Prevailing Wage Rates.
- Bonding or Retainage.

ACCEPTANCE

MidAmerica will undertake this proposed scope of services for a **Lump Sum Cost of \$9,371.25**. This proposed work scope and associated cost estimate is based on our knowledge of the project site conditions. The bid submitted is valid 30 days from the date above, unless otherwise stated in writing. Payment is due upon completion of the job unless other arrangements are made and stated in writing. Interest of 1.5% will be charged per month on delinquent accounts. If payment is not received when due, MidAmerica may take any steps necessary to enforce its rights under this agreement. Customer agrees to pay all costs incurred in collection with delinquent accounts, including attorney's fees, whether a lawsuit is commenced or not. Your signature on this document acknowledges your acceptance of the proposed work scope and associated costs.



Jim Harms
MidAmerica, Inc.

Date: October 6, 2025

Accepted:

Mr. Ryan Garcia
City of South St. Paul

Date: _____



251 STARKEY ST. - P.O. BOX 7216
SAINT PAUL, MINNESOTA 55107
PHONE: (651) 224-6299 FAX: (651) 223-8197

October 31, 2025

Ryan Garcia
City Administrator
rgarcia@southstpaul.org
608-412-5154 cell
651-554-3278 direct

417 North Concord St., South Saint Paul – Tank Removals

Thank you for the opportunity to help you with this project, we appreciate it!

Bolander's price for the tank removal work at 417 North Concord St., South Saint Paul
\$24,972.00

Our price includes:

- Removal of the canopy
- Removal of the tank islands and concrete to the extent necessary for the dispenser / product lines and tanks
- MPCA notification
- Excavation and assist Mi-America with fuel tank removal
- Mid-America's services per attached quote (\$9,371.00)
- Landmark Environmental scope (\$5,764.00)
- Backfill tank voids with compactible fill, top area with recycled class 5 for a drivable level surface.

We do NOT include: Building demolition, utility disconnects, contaminated soil removal

Please review and let me know if you have any questions or need anything else.

Thank you,

Andy Ristrom
Vice President
Cell: 612.242.4118
andy@bolander.com



ECONOMIC DEVELOPMENT AUTHORITY AGENDA REPORT

DATE: November 3, 2025
DEPARTMENT: Economic Development
PREPARED BY: Ryan Garcia
AGENDA ITEM NUMBER: 4.C.

MEETING TYPE

Regular Meeting

AGENDA ITEM

Approve Proposal for Building Demolition at 417 Concord Street North

ACTION TO BE CONSIDERED OR DESIRED OUTCOME

Through consent, motion to accept and authorize execution of proposal from Carl Bolander & Sons for the demolition of structures located at 417 Concord Street North.

OVERVIEW

In late September 2025, the EDA closed on the acquisition of the commercial property at 417 Concord Street North, the former "Jiffy Gas" retail gas station that had been inactive for about five years prior to our acquisition. As the EDA has no intention of positioning the property for future use as a retail gas station and the existing station store is functionally obsolete and dramatically undersized for a viable commercial reuse, Staff is recommending the demolition of all structures upon the property at this time. The demolition will include the removal of all asbestos and other regulated waste in compliance with MPCA regulations. Carl Bolander & Sons proposes a total cost for the project of \$23,575, which is considered a micro purchase under the City's purchasing policy.

SOURCE OF FUNDS

The demolition project will be fully funded by available retained increment in the Concord Street TIF Fund.

ATTACHMENTS

1. 417 Concord Demolition - Bolander Proposal



251 STARKEY ST. - P.O. BOX 7216
SAINT PAUL, MINNESOTA 55107
PHONE: (651) 224-6299 FAX: (651) 223-8197

October 31, 2025

Ryan Garcia
City Administrator
rgarcia@southstpaul.org
608-412-5154 cell
651-554-3278 direct

Demolition of 417 North Concord St., South Saint Paul

Thank you for the opportunity to help you with this project, we appreciate it!

Bolander's price for the demolition of the building located at 417 North Concord St., South Saint Paul \$23,735.00

Our price includes:

- Utility disconnects at the property line for demolition
- Universal regulated waste removal and recycling (J&J Contracting)
- MPCA notification, City permit
- Demolition of the above grade structure down to the slab (no demolition of the footings, slabs or outside of the building footprint).
- Asbestos abatement (Mavo) of the single vibration boot (per survey)

We do NOT include: Footing or slab removal, backfill, sitework, restoration, erosion control, MSW, chemicals, buried tanks or debris.

Please review and let me know if you have any questions or need anything else.

Thank you,

Andy Ristrom
Vice President
Cell: 612.242.4118
andy@bolander.com



ECONOMIC DEVELOPMENT AUTHORITY AGENDA REPORT

DATE: November 3, 2025
DEPARTMENT: Economic Development
PREPARED BY: Ryan Garcia
AGENDA ITEM NUMBER: 5.A.

MEETING TYPE

Regular Meeting

AGENDA ITEM

Approve Proposal for Deconstruction of Gatehouse Structures at Armour Avenue / Hardman Avenue and Retention of Remnant Masonry Elements

ACTION TO BE CONSIDERED OR DESIRED OUTCOME

Motion to approve proposal from RJ Ryan for the demolition of the Armour Gatehouse Structures, including the retention of up to five pallets of brick and stone for potential future reuse.

OVERVIEW

At the October 13, 2025 [City Council](#) worksession, Council discussed the status of ongoing Staff efforts to identify a path for the disposition and fate of the Armour Gatehouses. Staff presented a number of options for consideration and sought consensus on next steps to be taken by the EDA in its efforts to reconcile the Council's earlier direction to proceed with the planning, budgeting and bidding for relocation of the Armour Gatehouses to the Hardman Triangle (or thereabouts) with the conditions of a Purchase Agreement with Riverside Holdings, LLC. A summary of the options presented at the October 13 worksession is provided below. Because cost was a significant factor influencing Council's consensus on next steps, budget estimates obtained for each concept from licensed contractors is included in this list, while a more detailed examination of each option can be found in the [October 13 Worksession Packet linked here](#):

- **Option 1 - Relocate the Gatehouses to the Hardman Triangle Redevelopment Site -** *estimated cost range \$620,000 - \$750,000+ depending upon timing of placement of structures on new foundations; does not include indirect costs related to surrounding site improvements (park, public streets, etc.)*
- **Option 2 - Restore and Retain the Armour Gatehouses in their current location :** *estimated cost \$185,000; does not include indirect costs related to surrounding site improvements*
- **Option 3 - Identify an alternative site for Relocation -** *estimated costs depend upon location, but a minimum budget of \$475,000 for excavation, transport, repair/restoration, and footings is estimated*
- **Option 4 - Sensitively Deconstruct the Gatehouses for Reconstruction at a new location -** *\$400,000 for deconstruction by hand, labeling, cleaning and palletizing*

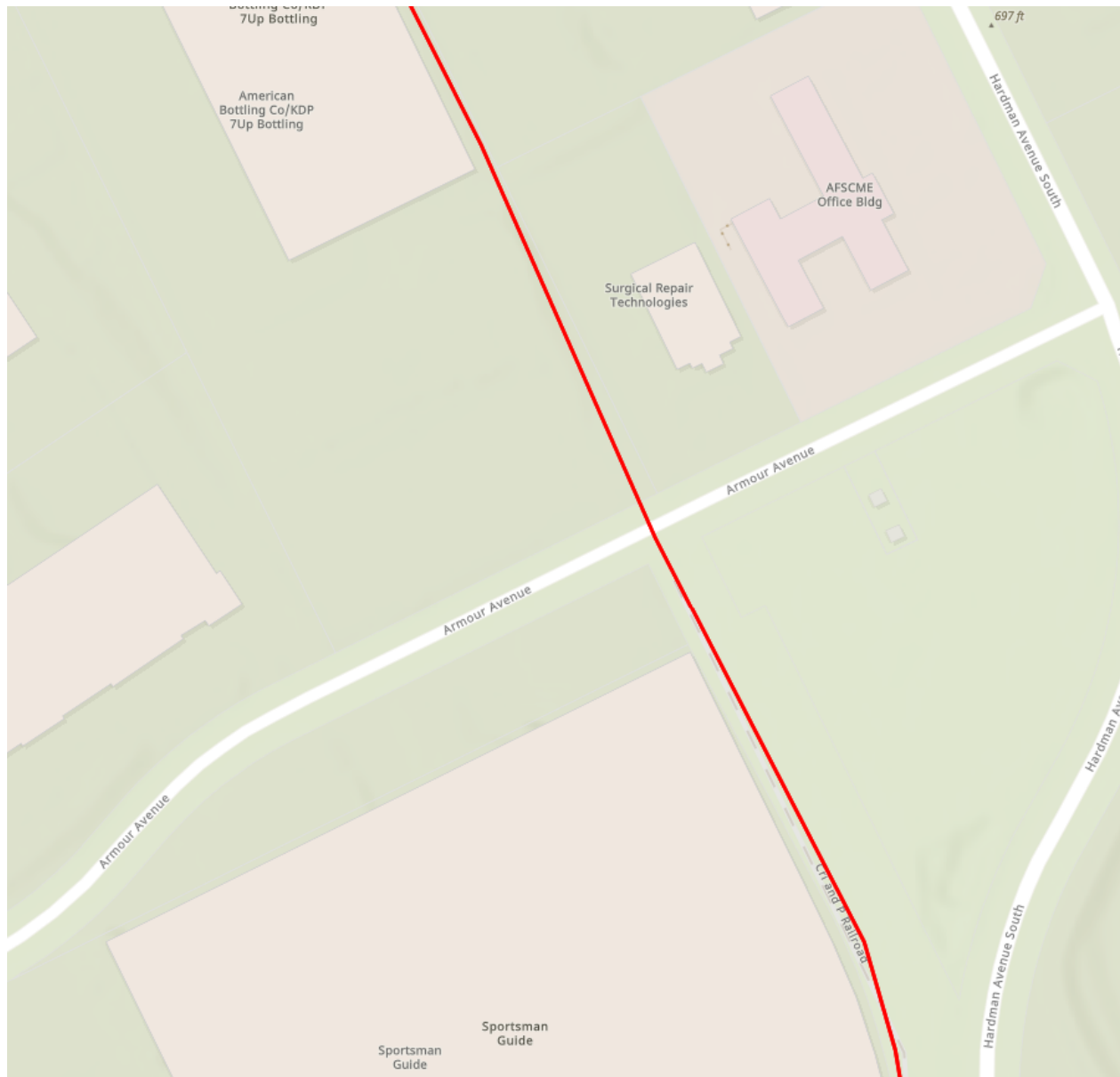
- brick/stone elements; add \$1,000,000 for to-scale and exact reconstruction as original*
- **Option 5 - Demolish the Structures Selectively and Sensitively to preserve masonry elements for future reuse in a different installation context** - *estimated cost range \$25,000 - \$30,000 to demolish structures but preserve masonry elements (intact brick, stone) that could be distributed to interested residents or compiled for a future public art installation using retained elements.*

Following discussion at the October 13 Worksession, Council's consensus was to direct staff to return to a future meeting with a firm quote to demolish the structures including direction to the contractor to preserve intact brick and stonework for distribution to interested residents and/or compiled for a future public art installation using retained elements. Staff has received a proposal for this approach from RJ Ryan for a total cost of \$13,200 to demolish the brick, slabs, and underground foundations, and to salvage up to five pallets of intact bricks and stone.

Worksession Follow-Up

At the October 27 Worksession, Jennifer Tworzyanski, Assistant to the State Archaeologist, spoke and seemed to suggest that the EDA's disposition of the Armour Gatehouse structures required review by the Office of the State Archaeologist (OSA) and that in acting to remove or relocate the structures we were running afoul of the [Minnesota Field Archaeology Act](#) and the [Private Cemeteries Act](#). Based upon past actions (or lack thereof), previously commissioned studies and surveys, and knowledge of the site, the structures, and their context, the EDA previously determined that OSA review is not relevant or compulsory. Nonetheless, in July 2025 the City Attorney's office offered the following analysis (summarized) as it relates to this issue.

1. **The Armour Gates are not listed on the National Register of Historic Places, or the Minnesota State Historic Inventory List.** Below is a screenshot of the Minnesota Inventory Website showing that the (now relocated) railroad line on the west edge of the property was inventoried as a historically significant rail line, but the Armour Gates are not listed. Additionally, the National Register's spreadsheet and searchable map did not contain the project, so there is no record of the Armour Gates on any official governmental list of protected historic places.



2. **There is no requirement for any historic sites to be submitted to the state archaeologist office.** The state archaeologist’s authority and requirements are codified in Minnesota State Statutes Sections 138.31 – 138.42.
- a. The legislative intent of that act, listed in Minn. Stat. § 138.32 is that “field archaeology on privately owned lands should be discouraged except in accordance with the provisions and spirit of this act.”
 - b. The duties of the State Archaeologist are found in Minn. Stat. § 138.35 Subd, 2. The duties of the state archaeologist shall include the following:
 1. to sponsor, engage in, and direct fundamental research into the archaeology of the state, and to encourage and coordinate archaeological research and investigation within the state;

2. to cooperate with other agencies of the state which may have authority in areas where state sites are located, or may have responsibility for marking state sites;
3. to protect to the extent possible and to encourage the preservation of archaeological sites located on privately owned property;
4. to retrieve and protect objects of archaeological significance discovered by field archaeology on state sites or discovered during the course of any public construction or demolition work.
5. to obtain for the state other objects of archaeological significance, and data relating thereto;
6. to cooperate with the historical society, the university, and other custodians to preserve objects of archaeological significance, together with the data relating thereto;
7. to disseminate archaeological facts through the publication of reports of archaeological research conducted within the state;
8. to approve licensing of qualified professional archaeologists to engage in field archaeology on state sites, as provided in section [138.36](#); and
9. to otherwise carry out and enforce sections [138.31](#) to [138.42](#).

None of the duties authorized under statute require a private landowner or a Responsible Governmental Unit (RGU) to submit to, or even consult with, the state archaeologist office before moving or destroying a *perceived* historical site, much less one that has not been registered. Their duties are to encourage, cooperate when asked, protect **archaeological** sites, retrieve and protect objects found, share information, license other archaeologists, and enforce the statute. There simply is no archaeological site on this property and trying to create the speculation that there could be one we interpret to be outside the scope, duties and authority of the State Archaeologist.

3. **The study performed during the Concord Road Reconstruction Project in 2021 - 2022 studied near the area where the current Armour Gates are located.** This mandatory archaeological search contained a portion of Armour Avenue. The study concluded that there was a “Low” potential of finding significant archaeological resources in this area. The survey showed that this area was either a wetland or water during the period of time beginning in 1854 and ending in 1937. The study reached far outside the bounds of Concord Street all the way up to the Mississippi River in some points (at the north end of Concord), where pockets of significance were identified, therefore, it is certain that if there were any sensitive areas between Concord and the River that abut Armour Avenue, they would have been identified in this study as well. The absence of notation on the maps indicate that nothing was found. The fact that the area identified in the Study corresponding to Armour Avenue is Low potential, further proves that point.
4. **Under State Regulations, there is no requirement for the City to perform an Environmental Assessment Worksheet, or an Environmental Impact Statement,** for moving or demolishing the Armour Gates or developing the Property. An EAW is required for Historic Places in certain situations outlined in Minn. R. 4410.4300 Subp.

31. That provision requires an EAW for the destruction, in whole or part, or the moving of a property that is **listed** in the NRHP or SRHP. As stated above, the Armour Gates are not listed on the national or state register of historic places or markers.

It is also important to note that the Armour Gates rest on property that was historically a part of the larger Armour industrial complex along the Mississippi River, which has been developed (and then redeveloped) since the early 20th Century. Literally, all of the additional land (approximately 40 acres) that comprised the original Armour site besides the Armour/Hardman property under purchase agreement with Riverside Holdings has been redeveloped incrementally over the past 33 years. Prior to beginning with the redevelopment of the larger site, the Housing & Redevelopment Authority of South St. Paul (HRA) prepared a [Mandatory Environmental Assessment Worksheet \(EAW\)](#) in 1992. Among many, many other things, the 1992 EAW included an assessment of historical and archaeological resources "on or in proximity to" the Site. The EAW noted that, yes, there were such resources, and identified them as the Armour Meatpacking Plant and the Swift and Company Meatpacking Plant, both of which prior to the EAW had been demolished. The EAW also noted the Stockyards Exchange Building (200 N. Concord) as being on the National Register of Historic Places, demonstrating the "reach" of the EAW as being relatively comprehensive. As it related to archaeological resources, the 1992 EAW concluded that "there are no known archaeological sites on or adjacent to the project area". Subsequent surveys and assessments at and within close proximity to the site have drawn the same conclusion. In light of these considerations, any claim that the gatehouse structures, the approximately 4-acre proposed development site, or the larger Armour Plant site represent or occupy an area that meet the definitions of historic or archaeological resources demanding review or approval by the Office of the State Archaeologist is suspect. Nonetheless, staff and the City Attorney will continue to clarify the state's position on this issue.

SOURCE OF FUNDS

Demolition is an eligible expenditure in the Concord Street Tax Increment Finance District Fund (40490).

ATTACHMENTS

1. RJ Ryan Proposal
2. 1992 Environmental Assessment Worksheet (EAW)



Armour Gates Demolition
Intersection of Armour Ave and Hardman Ave
South St. Paul, MN 55075

Attn: Mr. Ryan Garcia
City of South St. Paul, MN
125 Third Ave. N.
South St. Paul, MN 55075

Mr. Garcia,

We are pleased to present with you a proposal to demolish and dispose of the (2) gate structures at the intersection of Armour Ave. and Hardman. It is understood that the construction of this facility will be in accordance with commercial construction practices of the industry and shall be performed in a professional manner.

Our proposal is based on the following scope items:

- Demolition and disposal of damaged brick and slabs
- Demolition and disposal of (2) underground foundations.
- Salvage 3-5 pallets of bricks and “1918” capstones (does not include any brick cleaning).
- MPCA demolition permit.
- Work assumed to take during standard working hours (7a – 3p).
- RJ Ryan supervision.
- Does not include the following:
 - Asbestos survey or asbestos removal.
 - Costs or fees to relocate existing power lines or permanent utilities.
 - Cleaning of palletized bricks (ADD \$4-\$6 per brick if needed).
 - Removal or export of any contaminated materials.

RJ Ryan Construction proposes this Armour Gates Demolition as herein described for a total cost of **\$13,200**. Applications for payment will be presented monthly. Terms will be net 30 days. Thank you very much for the opportunity, we look forward to working with you.

A handwritten signature in blue ink, appearing to read 'J. Grotkin'.

John A. Grotkin, PE
Vice President

A handwritten signature in blue ink, appearing to read 'L. Klatt'.

Lindsey Klatt
Assistant Project Manager

Armour Site Industrial Redevelopment

Environmental Assessment Worksheet

**Prepared for:
The Housing and Redevelopment
Authority of South St. Paul**

July, 1992

ENVIRONMENTAL ASSESSMENT WORKSHEET (EAW)

NOTE TO PREPARERS

This worksheet is to be completed by the Responsible Governmental Unit (RGU) or its agents. The project proposer must supply any reasonably accessible data necessary for the worksheet, but is not to complete the final worksheet itself. If a complete answer does not fit in the space allotted, attach additional sheets as necessary.

For assistance with this worksheet contact the Minnesota Environmental Quality Board (EQB) at (612) 296-8253 or (toll-free) 1-800-652-9747 (ask operator for the EQB environmental review program) or consult EAW Guidelines, a booklet available from the EQB.

NOTE TO REVIEWERS

Comments must be submitted to the RGU (See item 3.) during the 30-day comment period following notice of the EAW in the EQB Monitor. (Contact the RGU or the EQB to learn when the comment period ends.) Comments should address the accuracy and completeness of the information, potential impacts that may warrant further investigation, and the need for an EIS. If the EAW has been prepared for the scoping of an EIS (See item 4.), comments should address the accuracy and completeness of the information and suggest issues for investigation in the EIS.

1. Project Title Armour Site Industrial Redevelopment

2. Proposer HRA of South St. Paul

3. RGU City of South St. Paul

Contact person Ms. Branna Lindell

Contract person Mr. Doug Reeder

Address 125 Third Avenue North

and title City Administrator

South St. Paul, MN 55075

Address 125 Third Avenue North

Phone 451-1838

South St. Paul, MN 55075

Phone 450-8702

4. Reasons for EAW Preparation

☐ EIS Scoping ☒ Mandatory EAW ☐ Citizen Petition

☐ RGU Discretion ☐ Proposer Volunteered

If EAW of EIS is mandatory give EQB rule category number (s) 4410.4300 Subpart 14B

5. Project Location

Parts of SE 1/4 of SE 1/4 of Section 22, and
SW 1/4 of SW 1/4 of Section 23, and
NW 1/4 of NW 1/4 of Section 26, and
NE 1/4 of NE 1/4 of Section 27, all in

Township 28N, Range 22W

County Dakota, City/Township South St. Paul

Attach copies of each of the following to the EAW:

- a. a county map showing the general location of the project; (See Exhibit A)
 - b. copy(ies) of USGS 7.5 minute, 1:24,000 scale map (photocopy is OK) indicating the project boundaries; (See Exhibit B)
 - c. a site plan showing all significant project and natural features. (See Exhibit C)
6. **Description.** Give a complete description of the proposed project and ancillary facilities (attach additional sheets as necessary). Emphasize construction and operation methods and features that will cause physical manipulation of the environment or produce wastes. Indicate the timing and duration of construction activities.

The project area is located along the west side of the Mississippi River north of I-494. The project site includes 36.3 acres owned by the Housing and Redevelopment Authority of South St. Paul. The project site is within a flood-protected area isolated from the river by a levee and floodwall system. The flood control structures occur within a strip of land between the project site and the Ordinary High Water Mark of the River. This strip varies from 150 to 200 feet in width along the eastern boundary of the site area.

Much of the project area was formerly occupied by the Armour and Company meatpacking plant which ceased operations at the site in 1979. In order to meet the City's redevelopment objectives for the area, the property was subsequently obtained by the Housing and Redevelopment Authority. Recent actions by both the City and the Housing and Redevelopment Authority have prepared the site for future development. The City has completed design and bidding, and has awarded contracts for new public streets and utilities (Hardman and Armour Avenue) to serve the project area. The Housing and Redevelopment Authority has recently completed demolition, clearing, and corrective measures on the former Armour and Company parcel. The Armour site, combined with several other parcels added during the acquisition of right-of-way for the public street and utility projects comprise the 36.3-acre project area.

6. Description (Continued)

The project will involve the subdivision of this property for phased development of industrial uses consistent with the City's Industrial Zoning District standards. Expected uses include warehousing and distribution, manufacturing, fabrication, assembly, research and development and ancillary office use in support of other industrial activities. The Housing and Redevelopment Authority will not undertake development itself; development parcels will be marketed to developers or end users who are expected to accomplish the actual construction activities within the project area. Based on historic absorption rates for industrial development in South St. Paul, project build-out is expected to take up to 12 years. However, the availability of a relatively large parcel of developable industrial property, as represented by this project, may result in higher absorption rates resulting in a shorter build-out period.

Permitted industrial uses and development intensity for the project are controlled by zoning. Certain uses with higher potentials for environmental impacts are excluded, and none of the allowed uses are dependent on access to the river for transport or appropriation of water. The development intensity which may be achieved within the project area is limited by a maximum floor-area-ratio standard in the zoning controls of 0.40. Since specific development proposals are unknown at this time, the analyses contained in subsequent sections of this worksheet are based upon the maximum development square footage which could be achieved within the confines of the 0.40 floor-area ratio applied to the 36.3-acre project site area.

The maximum development expected for this project is 623,000 square feet of industrial development if the maximum allowable floor-area ratio is achieved.

Provide a 50 or fewer word abstract for use in EQB Monitor notice:

The proposed project involves the subdivision of 36.3 acres for development of up to 632,000 square feet of office, manufacturing, and warehouse uses over a 10- to 12-year period. Issues addressed include potential impacts on water quality, and on air quality as a result of increased traffic.

7. Project Magnitude Data

Total Project Area (acres) 36.3
or Length (miles) N.A.

Number of Residential Units
Unattached N.A. Attached N.A.

Commercial/Industrial/Institutional Building Area (gross floor space)
Total 632,000 square feet;

7. Project Magnitude Data (Continued)

Indicate area of specific uses:

Office <u>30%-190,000 (Estimate)</u>	Manufacturing <u>40%-252,000 (Estimate)</u>
Retail <u>N.A.</u>	Other Industrial <u>N.A.</u>
Warehouse <u>30%-190,000 (Estimate)</u>	Institutional <u>N.A.</u>
Light Industrial <u>N.A.</u>	Agricultural <u>N.A.</u>
Other Commercial (specify) <u>N.A.</u>	
Building Height(s) <u>50 feet maximum, 35 feet maximum in the Shoreland Protection district, 30-40 feet expected average</u>	

8. Permits and Approvals Required. List all known local, state and federal permits, approvals and funding required:

<u>Unit of Government</u>	<u>Type of Application</u>	<u>Status</u>
State of Minnesota Pollution Control Agency	Indirect Source Permit	To be applied for
City of South St. Paul	Preliminary Plat	Pending
	Final Plat	To be applied for
	Building Permits	To be applied for

9. Land Use. Describe current and recent past land use and development on the site and on adjacent lands. Discuss the compatibility of the project with adjacent and nearby land uses; indicate whether any potential conflicts involve environmental matters. Identify any potential environmental hazard due to past land uses, such as soil contamination or abandoned storage tanks.

The project site area is currently vacant, following the recent removal of the remnants of the Armour and Company meatpacking plant and structures which formerly occupied the site. The site is located within an industrial redevelopment area which contains existing industrial uses, and vacant land which is available for industrial development. Adjacent existing industrial uses include a foundry and manufacturing facility to the north; a meatpacking plant (Pine Valley Meats), the United Stockyards Company and vacant property to the west on the north side of Armour Avenue; a warehouse facility and vacant property to the west on the south side of Armour Avenue; and a rendering plant, NSP power substation, and vacant property to the south. The area east of the site, between the site area and the Mississippi River contains a railroad corridor controlled by the Chicago Northwestern Railroad, and the levee which provides flood protection for the entire industrial area east of Trunk Highway 56 from I-494 north to Wentworth Avenue; approximately three-quarters of a mile north of the northern boundary of the project site. Future plans for the area occupied by the levee include the development of a recreational

9. Land Use (Continued).

trail called the Riverwalk, which would be a part of the City of South St. Paul's park system, and part of a larger system along the river in northern Dakota County. The segment of trail along the riverfront in South St. Paul would be a part of the larger system, by virtue of connections at the north and south ends, which would provide trail connections to other City parks, and County and Regional parks in northern Dakota and southern Ramsey Counties including:

- Lilydale/Harriet Island Regional Park
- Spring Lake Park Reserve
- Kaposia Park (City of South St. Paul)
- Marthaler Park and West St. Paul Park (City of West St. Paul)
- Thompson Park (Dakota County)

The master plan developed for this regional trail recognizes the existing and ongoing development of industrial uses within the industrial area of South St. Paul in which the project is located. Industrial use along the riverfront is part of the experience and interpretive potential which will be available to users of the trail. Neither the surrounding uses or the recreational trail are, therefore, incompatible with the proposed project. Because the future industrial use of the project site is controlled by zoning and other regulations dealing with air quality, wastewater, handling of solid waste and hazardous waste, runoff, and other potential environmental concerns, the potential for conflicts in existing and proposed land uses involving environmental matters is minimal.

Potential environmental hazards based on the past use of the property by Armour and Company have been corrected during the demolition and removal processes completed in the past year. Underground storage tanks were removed as part of the demolition contract. Soil contaminated by diesel fuel is being corrected by methods approved by the Minnesota Pollution Control Agency, and corrective measures are being monitored by PCA staff. These issues were identified in an environmental site audit completed for the property at the time of its purchase by the Housing and Redevelopment Authority. No other potential hazards were identified at that time.

The project site is also part of the Mississippi National River and Recreation Area (MNRRA) which was established in November 1988 and encompasses the majority of the area within the St. Paul-Minneapolis metropolitan area between the bluffs of the Mississippi River. A comprehensive plan for the MNRRA is currently being developed.

- 10. Cover Types.** Estimate the acreage of the site with each of the following cover types before and after development (before and after totals should be equal):

	<u>Before</u>	<u>After</u>
Types 2 to 8 Wetlands	<u>0</u>	<u>0</u>
Wooded/Forest	<u>0</u>	<u>0</u>
Brush/Grassland	<u>0</u>	<u>0</u>
Cropland	<u>0</u>	<u>0</u>
Urban/Suburban Lawn Landscaping	<u>0</u>	<u>7.3</u> (estimate)
Impervious Surface	<u>0</u>	<u>29.0</u> (estimate)
Other (describe)	<u>36.3</u>	<u>0</u>

10. Cover Types (Continued)

The site cover consists of 100 percent topsoil and granular soil materials with no vegetative cover. All structures and impervious surfaces were removed during 1991, and the site areas were backfilled and graded out.

11. Fish, Wildlife, and Ecologically Sensitive Resources

- a. Describe fish and wildlife resources on or near the site and discuss how they would be affected by the project. Describe any measures to be taken to minimize or avoid adverse impacts.

Fish and wildlife resources within this site are essentially non-existent. The proposed project site was previously the Armour meatpacking plant. Buildings and roads from this previous use were demolished in 1990-1991 and the site was regraded. The current condition of the site is unvegetated.

The Mississippi River borders the site. Two small wooded islands are found in this area of the river. These islands provide habitat for a variety of birds and other wildlife species. However, the project is not water dependent and is separated from the river by an existing levee. Therefore, the project is not expected to impact any fish or wildlife resources.

- b. Are there any state-listed endangered, threatened, or special-concern species; rare plant communities; colonial waterbird nesting colonies; native prairie or other rare habitat; or other sensitive ecological resources on or near the site?

 X Yes No

If yes, describe the resource and how it would be affected by the project. Indicate if a site survey of the resources was conducted. Describe measures to be taken to minimize or avoid adverse impacts.

A search was conducted of the DNR's Natural Heritage Program database for rare, threatened and endangered species. Two records were found within one mile of the project site, both of which occur within the Pigs Eye Island Heron Rookery Scientific and Natural Area located in the northeast corner of Section 22 on the east side of the river. The records include a floodplain forest plant community and a colonial waterbird nesting site (see DNR letter, February 24, 1992, in Appendix C).

Although not indicated in the DNR letter dated February 24, 1992, a bald eagle's nest is located approximately 1½ river-miles north of the proposed site. Based on DNR records, the nest was established in 1989. Bald eagle winter use areas include: the shoreline at Port Crosby, Pig's Eye Island No.1, the west shore of Pig's Eye peninsula to the south end of the heronry, the west shore of Maldon Road, and along the Packer Preserve shoreline (Source: DNR letter dated July 22, 1992). Because the proposed site lacks tall trees, eagles are not anticipated to occur on the subject property (See DNR letter in Appendix C).

Given that the project is located in and south of the southeast corner of Section 22 and on the west bank of the river, that the project is not water dependent, and that the site has been previously developed for over 70 years, the proposed project is not expected to have an impact on the river, the floodplain forest or the heron rookery.

- 12. Physical Impacts on Water Resources.** Will the project involve the physical or hydrologic alteration (dredging, filling, stream diversion, outfall structure, diking, impoundment) of any surface water (lake, pond, wetland, stream, drainage ditch)?

___ Yes X No

13. Water Use

- a.** Will the project involve the installation or abandonment of any wells?

X Yes ___ No

For abandoned wells give the location and Unique well number. For new wells, or other previously unpermitted wells, give the location and purpose of the well and the Unique well number (if known).

At the time the project area was purchased by the Housing and Redevelopment Authority, six unused wells existed on the site. All of the wells had been used to supply process water for the operations of Armour and Company on the site. In 1991, as part of the clearing and demolition of the site for future development, the

wells were sealed in accordance with state requirements. The Well Abandonment Certifications for the wells are included in Appendix C. During the same time period, the Housing and Redevelopment Authority initiated soils remediation efforts to clean up on-site soils with fuel contamination from underground storage tanks removed under demolition contracts. Remediation work is ongoing, under the direction of the Minnesota Pollution Control Agency. The remediation program included the installation of six, shallow monitoring wells to allow groundwater sampling during and after the remediation period. The wells were installed after permits were issued by the Dakota County Public Health Department, and are scheduled to be removed in late 1992. A copy of the permit issued for these wells is included in Appendix C.

- b. Will the project require an appropriation of ground or surface water (including dewatering)?

☐ Yes ☒ No

If yes, indicate the source, quantity, duration, purpose of the appropriation, and DNR water appropriation permit number of any existing appropriation. Discuss the impact of the appropriation on ground water levels.

- c. Will the project require connection to a public water supply?

☒ Yes ☐ No

If yes, identify the supply, the DNR water appropriation permit number of the supply, and the quantity to be used.

The City of South St. Paul is in the process of letting a construction contract which, among other work, will require extension of the municipal water distribution system to serve the project. Construction documents for the proposed construction are included in plans and specifications titled "Armour-Hardman Avenues Street and Utility Improvements City Project No. 1991-007" prepared by TKDA and dated September 6, 1991.

Development on the site will connect to the proposed extension of the municipal water distribution system.

The City of South St. Paul provides water for the distribution system by drawing groundwater from six active wells. The City is authorized to appropriate groundwater under DNR Water Appropriation Permit Number 74-5168.

Using average daily water demand rates of 25 gallons per capita per day for the office and warehouse/storage sites and a demand rate of 1.2 gallons per minute per acre for the industrial/manufacturing area would, as shown in Table 13-1, result in a total water demand of 13.52 million gallons per year for the project after full development.

13. Water Use (Continued)

Type of Use	Land Area (Acres)	Building Area (Square Feet)	Average Daily Demand in Gallons Per User Per Day (GPC PD) or Gallons Per Minute Per Acre (GPM/A)	Assumed Occupant Loading Rate	Calculated Number of Users	Total Yearly Demand Based on Average Daily Demand Million Gallons Per year *
Office	10.9	190,000	25 GPC PD	1 user per 200 sq. ft.	950	6.17
Warehouse/ Storage	10.9	190,000	25 GPC PD	1 user per 2,400 sq. ft.	80	0.52
Industrial/ Manufacturing	14.47	252,000	1.2 GPM/A	---	---	6.50
TOTAL						13.52

* Assumed 260 work days per year.

- 14. Water-related Land Use Management Districts.** Does any part of the project site involve a shoreland zoning district, a delineated 100-year floodplain, or a state or federally designated wild or scenic river land use district?

 X Yes No

If yes, identify the district and discuss the compatibility of the project with the land use restrictions of the district.

Approximately 100-150 feet of the project site area along the eastern project boundary is within a shoreland zoning protection district as defined by South St. Paul's zoning ordinance. Proposed industrial uses are compatible with the district requirements as they relate to allowed use, but several more stringent requirements for the development of land within the shoreland zone apply. Specifically, shoreland zoning provisions applied to the proposed project will limit maximum building height to 35 feet, and will limit the maximum amount of impervious surface within the shorelands district to 30 percent of the total lot area within the district. As illustrated in Exhibit C, the proposed site development plan is consistent with the shoreland district standards. Open space between the eastern project boundary and the Ordinary High Water Mark of the river is included in the area upon which the 30 percent maximum impervious surface is calculated. Future use of this area as open space ensures that controlling impervious surface within the project area will provide for the intent of the ordinance; no additional impervious surface development is anticipated between the eastern project boundary and the river. Because of the intervening area between the project boundary and the river, ordinary zoning setback requirements exceed the setbacks specified from the Ordinary High Water Mark in the shoreland zoning ordinance.

15. **Water Surface Use.** Will the project change the number or type of watercraft on any water body?

___ Yes X No

If yes, indicate the current and projected watercraft usage and discuss any potential overcrowding or conflicts with other users or fish and wildlife resources.

16. **Soils.** Approximate depth (in feet) to:

Groundwater: minimum 3 Ft. average 9 Ft.
Bedrock: minimum 22 Ft. average Greater than 22 Ft.

Describe the soils on the site, giving SCS classifications, if known. (SCS interpretations and soil boring logs need not be attached.)

Groundwater

Groundwater elevations were observed to vary from elevation 693, or about 3-1/2 feet below existing ground elevation, to elevation 682-1/2, or about 14-1/2 feet below existing ground elevation. These observations were made between March 1975 and July 1976.

Bedrock

Based on the Braun Engineering Testing Report dated July 1976, bedrock was encountered in only one soil boring that was drilled near the southerly extreme of the site. The report indicates that probable weathered bedrock was encountered at 22 feet below the existing ground surface or at elevation 672 feet $\pm$.

Soils

On-site soils have been classified by the Dakota County SCS as "urban land."

A review of the available soil boring logs indicate that the southerly portion of the site has from 4-1/4 feet to 9-1/2 feet of silty sand with relative densities varying from very loose to medium dense condition. Underlying the fill, in some areas, a 4 feet to 10-1/2 feet thick layer of cohesive soils was identified as being in a rather soft to rather stiff condition. Underlying the fill in other areas, however, a 15-foot thick layer of peat, muck, and organic silt or clay exists in a soft condition to approximately 22 feet below existing ground elevation.

Underlying the cohesive soil and organic subsoil layers a sand of glacial outwash origin was found in all of the borings.

16. Soils (Continued)

A review of the soil boring logs for testing performed near the northerly extreme of the site, in general, indicates a 2-1/2 foot to 9 foot thick layer of sand and silty sand fill. Underlying the fill a layer of fine alluvium varying from 3-1/2 feet thick to 13 feet thick was recorded with consistencies ranging from very soft to rather soft. Some of the soil boring logs also noted that layers, 2 feet thick to 3-1/2 feet thick, of organic material exists below the fine alluvium and on top of the coarse alluvium that underlies the stratum of fine alluvium. The fine alluvium consists generally of silty clays to fat ways while the coarse alluvium below consists of silty sand and sand varying in relative density from very loose to medium dense.

Copies of the available soil tests are available upon request.

References:

1. Additional Soil Investigation
Proposed Reconstruction of Grand Avenue
South St. Paul
Prepared by Soil Exploration Company dated 4-3-75 (Job Nos. 21353 and 21353A)
2. Soil Borings
Proposed East Chute Road
South St. Paul
Prepared by Braun Engineering Testing dated 7-9-76
3. Dakota County Soil Conservation Service

Attachment D:

1. Reproduction of SCS Map

17. **Erosion and Sedimentation.** Give the acreage to be graded or excavated and the cubic yards of soil to be moved: acres N.A.; cubic yards N.A..

Describe any steep slopes or highly erodible soils and identify them on the site map. Describe the erosion and sedimentation measures to be used during and after construction of the project.

Mass grading of the site will not be required as the existing elevations vary only 4 feet $\pm$ over the entire site. Only minor grading and shaping of surface contours for drainage will be required as a part of each individual site development. Final plans for each lot will be subject to final review and approval by the City of South St. Paul prior to construction. Adequate erosion control plans which limit impacts from erosion and sedimentation by adhering to standards of the Dakota County Soil and Water Conservation District will be required by the City.

18. Water Quality - Surface Water Runoff

- a. Compare the quantity and quality of site runoff before and after the project. Describe methods to be used to manage and/or treat runoff.

Development of the project site area will result in increased volume and peak rate of runoff as existing open areas are converted to impervious surfaces. Utilizing an average annual precipitation rate of 29 inches, and summer mean runoff coefficients of 0.09 for undeveloped land, and 0.75 for developed commercial/industrial land use; average annual runoff for the pre-development and post-development condition compare as follows:

Site Area	Average Precipitation	Undeveloped Runoff Coefficient	Developed Runoff Coefficient	Undeveloped Annual Runoff	Developed Annual Runoff
36.3 Acres	29 Inches/Yr.	0.09	0.75	7.9 Acre/Ft.	65.8 Acre/Ft.

Urbanization of the project site will result in increased pollutant loading of runoff from the site, and will increase export of pollutants to the receiving waters which is the Mississippi River. Impervious surfaces such as rooftops, roadways, driveways, and parking lots will increase levels of gasoline, oil, suspended solids, phosphorus, and heavy metals in site-generated runoff. Landscaped areas will contribute increased levels of nitrogen, phosphorus, and potassium found in fertilizers.

Post-development runoff from the project site will be conveyed to the Mississippi River by a storm sewer system currently under construction by the City of South St. Paul as part of the "Armour-Hardman Avenues Street and Utility Improvements, City Project No. 1991-007." The system was designed to accommodate post-development runoff rates and volumes without on-site detention ponding. Surface water runoff will be discharged directly into the Mississippi River without any treatment. Neither the City of South St. Paul, nor the Lower Mississippi Watershed Management Organization require pre-treatment of runoff prior to discharge into the river.

It should be noted that the increase in runoff and pollutant loading is projected as a result of the development of the site relative to the current vacant condition. Surface water runoff prior to demolition of the Armour and Company plant and facilities was probably not significantly different than the surface water runoff will be following redevelopment.

- b. Identify the route(s) and receiving water bodies for runoff from the site. Estimate the impact of the runoff on the quality of the receiving waters. (If the runoff may affect a lake, consult EAW Guidelines about whether a nutrient budget analysis is needed.)

18. Water Quality - Surface Water Runoff (Continued)

As described in the previous section, the runoff from the project site is conveyed through storm sewers directly to the Mississippi River. The storm sewers which will serve the site also provide for the collection of surface runoff for two subwatershed areas within South St. Paul which total approximately 412 acres of area. With development of the project site, 343 acres of the subwatershed areas will be urbanized, and will be contributing untreated urban runoff directly to the River. Development of the project site will result in an approximately 10 percent increase in runoff from the 412-acre drainage area, with a proportionate increase in the export of pollutants.

Average daily flow for the Mississippi River adjacent to the project site where runoff will be discharged is 6,960 MGD (Million Gallons per Day). Conversion of the estimated post-development runoff from the project site of 65.8 acre/feet/year to MGD results in an estimated site-generated average of 0.058 MGD which is less than 0.001 percent (one-thousandth of 1 percent) of the total flow of the receiving waters. Because the site-generated runoff is both a small percentage of an urbanized area already contributing pollutants to the receiving waters, and a small fraction of a percentage of the total flow in the receiving waters, the potential for additional adverse water quality impacts in the Mississippi River as a result of development of the project site is estimated to be insignificant.

Sources:

- Results of the Nationwide Urban Runoff Program, Volume I, Final Report prepared by U.S. Environmental Protection Agency dated December 1983.
- Water Resources Management Development Guide/Policy Plan prepared by Metropolitan Council of the Twin Cities Area dated May 1986.
- Protecting Water Quality in Urban Areas prepared by the Minnesota Pollution Control Agency, Division of Water Quality, dated October 1989.
- Plans and Specifications titled "Armour-Hardman Avenues Street and Utility Improvements, City Project No. 1991-007," prepared by Toltz, King, Duvall, Anderson and Associates, dated September 9, 1991.
- Sewer Map of South St. Paul, latest revised, dated June 1990.

19. Water Quality - Wastewaters

- a. Describe sources, quantities, and composition (except for normal domestic sewage) of all sanitary and industrial wastewaters produced or treated at the site.

19. Water Quality - Wastewaters (Continued)

Projected wastewater quantities generated by the site after full development are detailed in Table 19-1.

Type of Land Use	Total Structure Area or Acreage of Site Used for the Type of Land Use	* Average Daily Flow Rate	Total Average Daily Flow (Million Gallons/Day (MGD))
Office	190,000 S.F. of structure	** 274 gallons/ day/2,400 S.F. of net space	0.0184
Warehouse/Storage	190,000 S.F. of structure	274 gallons/ day/2,400 S.F. of net space	0.0073
Industrial/Manufacturing	14.51 acres of site area	2,000 gallons/ day/acre ***	0.0290
TOTAL			0.0547 MGD

* Source: Metropolitan Waste Control Commission, Reserve Capacity Manual

** Assumed net office area to be 85% of gross structure area

***Non-wet type use

It is expected that the wastewater generated from the office and warehouse/storage land use would have a composition of normal domestic sewage.

At this time, a determination of the composition of the sewage generated by the proposed industrial and/or manufacturing facilities cannot be made as the type of industrial or manufacturing process, if any, are unknown. Uses or process which generate wastewater requiring pre-treatment or additional treatment because of the wastewater composition can be identified as part of the local approval and permitting processes. Appropriate methods of pre-treatment or other mitigation can be identified and enforced through existing industrial wastewater discharge permitting processes.

- b. Describe any waste treatment methods to be used and give estimates of composition after treatment, or if the project involves on-site sewage systems, discuss the suitability of the site conditions for such systems. Identify receiving waters (including groundwater) and estimate the impact of the discharge on the quality of the receiving waters. (If the discharge may affect a lake, consult EAW Guidelines about whether a nutrient budget analysis is needed.)

See Section 19c on the following page.

19. Water Quality - Wastewaters (Continued)

- c. If wastes will be discharged into a sewer system or pretreatment system, identify the system and discuss the ability of the system to accept the volume and composition of the wastes. Identify any improvements which will be necessary.

The City of South St. Paul is in the process of letting a construction contract which, among other work, will require construction of a new sanitary sewage collection system to serve the site. Construction documents for the proposed collection system are included in plans and specifications titled "Armour-Hardman Avenues Street and Utility Improvements, City Project No. 1991-007" prepared by TKDA and dated September 6, 1991.

Sewage generated by the site will be discharged into the new collection system and will flow, by gravity, through the system to the MWCC pumping station located south of the I-494 bridge on the west side of the Mississippi River. The gravity collection system ranges in size from an 8-inch diameter ESVCP sewer up to a 42-inch diameter pipe. The sewage is eventually treated at the Pigs Eye sewage treatment plant after being pumped to the plant from the MWCC pumping station.

20. Groundwater - Potential for Contamination

- a. Approximate depth (in feet) to groundwater: 3' minimum; 9' average.
- b. Describe any of the following site hazards to groundwater and also identify them on the site map: sinkholes; shallow limestone formations/karst conditions; soils with high infiltration rates; abandoned or unused wells. Describe measures to avoid or minimize environmental problems due to any of these hazards.

Not applicable - See Section 13a for a description of on-site wells.

- c. Identify any toxic or hazardous materials to be used or present on the project site and identify measures to be used to prevent them from contaminating groundwater.

As described in Section 13a, some soils contamination with fuel oil was discovered when on-site underground storage tanks were removed. Remediation measures approved by the Minnesota Pollution Control Agency have been undertaken and will be complete by late 1992.

21. Solid Wastes; Hazardous Wastes; Storage Tanks

- a. Describe the types, amounts, and compositions of solid or hazardous wastes to be generated, including animal manures, sludges and ashes. Identify the method and location of disposal. For projects generating municipal solid waste indicate if there will be a source separation plan; list type(s) and how the project will be modified to allow recycling.

The development of the proposed project will result in the generation of typical mixed municipal solid waste from the site.

Mixed municipal solid waste (MSW) would include garbage, refuse, and other solid waste from commercial activities that is generated and collected in aggregate.

The composition and volume of solid waste that would be generated by an industrial/manufacturing land use cannot be determined at this time as the type of facility and/or user is unknown at this time.

Table 21-1 details an estimate of the volume of MSW that would be generated by the proposed project. This estimate does not include any volume of solid waste that could be generated by a manufacturing process.

Type of Land Use	Structure Size Gross Square Footage S.F.	Assumed Number of Employees/ Users **	Average MSW Generation Per Day Per User *** #/Day	Total MSW * Generated Tons/Year
Office	190,000	950	7	865
Warehouse/Storage	190,000	80	7	73
Industrial/ Manufacturing	252,000	51	7	46
TOTAL				984

* Assumes 260 working days per year

** Assumes: 1 user/200 SF for office; 1 user/2,400 SF for warehouse/storage;
1 user/5,000 SF for industrial/manufacturing

***Source: Draft Solid Waste Management Development Guide/Policy Plan,
Metropolitan Council, dated September 27, 1990 (Guide/Policy Plan 1990)

21. Solid Wastes; Hazardous Wastes; Storage Tanks (Continued)

Currently, practically all of the MSW generated in the South St. Paul area is being land filled at the Pine Bend Landfill.

To encourage source separation and recycling of a portion of the MSW the Guide/Policy Plan 1990 proposes five goals and 19 separate policies.

One of the goals, achieving equity in allocating waste management costs, should provide impetus to office/warehouse/industrial types of land uses to increase their efforts to recycle the MSW generated.

- b.** Indicate the number, location, size, and use of any above or below ground tanks to be used for storage of petroleum products or other materials (except water).

At this time it is not known if any of the future end users or tenants of the industrial area will require underground storage tanks. However, underground storage tanks for any purpose are subject to permitting processes of the City of South St. Paul. Depending on the materials stored, permits may also be required by County and State agencies.

- 22. Traffic.** Parking spaces added 1,310 Existing spaces (if project involves expansion) N.A. Estimated total Average Daily Traffic (ADT) generated 4,170 Estimated maximum peak hour traffic generated (if known) and its timing: 525, 7:00 to 8:00 a.m. For each affected road indicate the ADT and the directional distribution of traffic with and without the project. Provide an estimate of the impact on traffic congestion on the affected roads and describe any traffic improvements which will be necessary.

A traffic analysis of the proposed project is included as Appendix A of this document. The analysis indicates that all signalized intersections in the vicinity of the project site will operate at Level of Service (LOS) "C" or better during the peak traffic hours with the project generated traffic. The only intersection requiring mitigation to accommodate project generated traffic is the intersection of Hardman Avenue with the I-494 westbound ramps and Villaume Avenue. In the AM peak hour the westbound right turn movement which is controlled by a stop sign is forecast to exceed the movement capacity. This intersection can be improved by constructing a free right-turn lane with a yield sign for the westbound right-turn movement.

- 23. Vehicle-related Air Emissions.** Provide an estimate of the effect of the project's traffic generation on air quality, including carbon monoxide levels. Discuss the effect of traffic improvements or other mitigation measures on air quality impacts. (If the project involves 500 or more parking spaces, consult EAW Guidelines about whether a detailed air quality analysis is needed.)

23. Vehicle-related Air Emissions (Continued)

Traffic generated by the project will add to existing levels of carbon monoxide (CO) near streets and intersections serving the project site. A detailed air quality analysis is included as Appendix B to this document. The detailed air quality analysis indicates that the proposed project will not cause violations of state air quality standards for CO. The project will require an Indirect Source Permit from the Minnesota Pollution Control Agency prior to commencement of construction. The intent of the Indirect Source Permit is to regulate vehicular emissions of CO.

24. Stationary Source Air Emissions. Will the project involve any stationary sources of air emissions (such as boilers or exhaust stacks)?

 X Yes No

If yes, describe the sources, quantities, and composition of the emissions; the proposed air pollution control devices; the quantities and composition of the emissions after treatment; and the effects on air quality.

Industrial uses developed as part of the project may include boilers and/or exhaust stacks. Specific industrial developments have not been identified at this time so sources, quantities and composition of emissions cannot be estimated. Any industrial sources will be required to obtain applicable air emissions permits prior to operation.

25. Will the Project Generate Dust, Odors, or Noise During Construction and/or Operation?

 X Yes No

If yes, describe the sources, characteristics, duration, and quantities or intensity, and any proposed measures to mitigate adverse impacts. Also identify the locations of sensitive receptors in the vicinity and estimate the impacts on these receptors.

Dust

Fugitive dust will be generated during site preparation and construction activities. Construction contractors will be required to control fugitive dust emissions during construction through watering, application of dust suppressants, cleaning streets in the vicinity of the project and/or other appropriate measures.

25. (Continued)

Odors

Odors could potentially be generated by industrial uses developed as part of the project. Specific industrial developments have not been identified at this time so specific odor sources are not identifiable.

Noise

Noise will be generated by construction equipment during construction of proposed buildings on the site. A variety of construction equipment will be used on the site and noise levels will vary considerably depending on the types of equipment in use and their location on the site. Peak noise levels from trucks and other equipment may exceed 90 dBA at fifty feet from the equipment. Noise levels would decrease with distance from the construction site.

After construction, traffic generated by the project will add to existing levels of traffic noise along the streets serving the project site. Project generated traffic will not result in a significant or noticeable increase in traffic noise levels.

The nearest noise sensitive receiver sites are the residences located west of Concord Street, over one quarter mile from the project site. These residential uses will not be impacted by either construction or operational noises from the project. The industrial and commercial land uses in the vicinity of the site will not be adversely impacted by either the construction or operational noises from the project.

26. Are Any of the Following Resources on or in Proximity to the Site?

- a. archaeological, historical, or architectural resources? ☒ Yes ☐ No
- b. prime or unique farmlands? ☐ Yes ☒ No
- c. designated parks, recreation areas, or trails? ☒ Yes ☐ No
- d. scenic views and vistas? ☒ Yes ☐ No
- e. other unique resources? ☐ Yes ☒ No

If any items are answered Yes, describe the resource and identify any impacts on the resource due to the project. Describe any measures to be taken to minimize or avoid adverse impacts.

26. (Continued)

- a. The development area is the site of the original Armour Meatpacking Plant, site DK-SPC-001. This property, constructed in 1918, is listed in the Minnesota State Files as having state significance. The original buildings have been demolished, but there are some surviving stockyards on the west side of Hardman Avenue. Some architectural artifacts were salvaged during demolition for incorporation into the new development.

Northwest of the Armour Plant is the Stockyards Exchange Building, DK-SPC-014, at 200 North Concord Street. This building is listed on the National Register of Historic Places.

North of the Armour Plant is historic site DK-SPC-013, the Swift and Company Meatpacking Plant. Most of the buildings from this complex have been demolished since the company closed operations in the late 1960s.

There are no known archaeological sites on or adjacent to the project area.

- c. The City of South St. Paul has a designated trail corridor near the levee along the Mississippi River. The proposed project will not interfere with this trail designation. The site falls within the designated Mississippi National River and Recreation Area (MNRRA). A comprehensive plan for the MNRRA is currently being developed.
- d. The Mississippi River is visible from the site.

- 27. Will the Project Create Adverse Visual Impacts?** (Examples include: glare from intense lights; lights visible in wilderness areas; and large visible plumes from cooling towers or exhaust stacks.)

___ Yes X No

If yes, explain.

- 28. Compatibility with Plans.** Is the project subject to an adopted local comprehensive land use plan or any other applicable land use, water, or resource management plan of an local, regional, state, or federal agency?

X Yes ___ No

If yes, identify the applicable plan(s), discuss the compatibility of the project with the provisions of the plan(s), and explain how any conflicts between the project and the plan(s) will be resolved. If no, explain.

28. Compatibility with Plans (Continued)

The project is subject to the City's Comprehensive Land Use Plan, including their Mississippi River Critical Area Plan which was incorporated into the Comprehensive Land Use Plan some time after the original Comprehensive Plan was prepared and adopted by the City. The project site also falls within a designated Redevelopment Project area within the City and is subject to an adopted Redevelopment Plan for the Concord Street corridor and the riverfront industrial area from Concord Street to the River, and from I-494 on the south to Wentworth Avenue on the north. The proposed development of the site for light industrial use including office, manufacturing, and warehouse components is consistent with all of the applicable plans intended to guide development of the area.

29. Impact on Infrastructure and Public Services. Will new or expanded utilities, roads, other infrastructure, or public services be required to serve the project?

☐ Yes ☒ No

If yes, describe the new or additional infrastructure/services needed. (Any infrastructure that is a "connected action" with respect to the project must be assessed in this EAW; see EAW Guidelines for details.)

30. Related Developments; Cumulative Impacts

- a. Are future stages of this development planned or likely? ☐ Yes ☒ No

If yes, briefly describe future stages, their timing, and plans for environmental review.

- b. Is this project a subsequent stage of an earlier project? ☐ Yes ☒ No

If yes, briefly describe the past development, its timing, and any past environmental review.

- c. Is other development anticipated on adjacent lands or outlots? ☒ Yes ☐ No

If yes, briefly describe the development and its relationship to the present project.

Nine vacant parcels of property which are likely to be developed during the same time frame as the project site have been identified in the vicinity of the project. The parcels total approximately 71 acres and are described and illustrated on pages 16 and 17 of the traffic study included as Appendix A. Development potential for these parcels has been estimated at 1,077,000 square feet of light industrial use similar to that expected on the project site. Although the proposed

30. Related Developments; Cumulative Impacts (Continued)

project is not dependent in any way on development of the other vacant parcels in the same general area, nor is development of the vacant parcels dependent on the proposed project, development activity involving one or the other may create development "momentum" which contributes to the likelihood that development will occur.

- d. If a, b, or c were marked Yes, discuss any cumulative environmental impacts resulting from this project and the other development.

The potential for cumulative environmental impacts from development of the vacant parcels described above within the same time frame as the proposed project are expected to be limited to the effects of increased storm water runoff, and increased traffic levels which would occur as the vacant parcels develop. Development of the vacant parcels would result in additional export of pollutants to the Mississippi River from the same subwatershed areas of which the proposed project is a part. Urbanization of the vacant 71 acres would roughly triple the export of pollutants expected from the project site area alone. However, even with this increase, the proportion of post-development runoff as a percentage of the total flow in the receiving waters is extremely small. Therefore, no significant cumulative impact on water quality is expected.

Development of the vacant parcels will also result in increased traffic generated in the vicinity of the proposed project. The traffic impacts analysis and the air quality analysis completed for the proposed project both assumed development of 1,077,000 square feet of light industrial uses on the vacant parcels. Therefore, the conclusions that the proposed project will not cause adverse traffic or air quality impacts apply to both the proposed project and the adjoining vacant properties. No other potential cumulative impacts have been identified.

- 31. Other Potential Environmental Impacts.** If the project may cause any adverse environmental impacts which were not addressed by Items 1 to 28, identify and discuss them here, along with any proposed mitigation.

No additional potential impacts have been identified.

32. **SUMMARY OF ISSUES.** (This section need not be completed if the EAW is being done for EIS scoping; instead, address relevant issues in the draft Scoping Decision document which must accompany the EAW.) List any impacts and issues identified above that may require further investigation before the project is commenced. Discuss any alternatives or mitigative measures that have been or may be considered for these impacts and issues, including those that have been or may be ordered as permit conditions.

The issues addressed in this EAW are summarized below, by item number:

6. Project Description

The proposed project studied in the EAW involves the subdivision of 36.3 acres of land for development of up to 632,000 square feet of light industrial use.

11. Fish/Wildlife/Ecologically Sensitive Resources

The project borders the Mississippi River and is in proximity to two recorded rare, threatened, and endangered species. Both occur within the Pigs Eye Island Heron Rookery Scientific and Natural Area. Neither is expected to be adversely affected by the project.

A bald eagle's nest is located approximately 1½ river-miles north of the proposed site. Winter use areas include the larger island to the east of the proposed site. Bald eagles are classified as a threatened species in the state of Minnesota.

13. Water Use/Wells

Six monitoring wells occur within the project area. All six will be abandoned in late 1992.

14. Water-related Land Use Management Districts

The project occurs within a designated Shoreland Zoning District. The project will be developed in conformance with the City's Zoning Ordinance provisions for Shoreland Districts.

18. Water Quality - Surface Water Runoff

The project will result in increased export of urban pollutants borne by surface water runoff to the Mississippi River. Because the project occurs within an urbanized watershed, and because the project-generated runoff is an extremely small fraction of the total flow in the river, the potential for adverse impacts is estimated to be insignificant.

32. SUMMARY OF ISSUES (Continued)

20. Groundwater - Potential for Contamination

Some contaminated soils were located on the project site when abandoned underground tanks were removed. Remediation is underway and should be completed in late 1992.

22. Traffic

The project will generate significant additional traffic in the vicinity of the project. Traffic impacts analysis has concluded that minor intersection improvements in one location will accommodate increased site-generated traffic and forecasted background traffic growth without negatively affecting local or regional roadways.

23. Vehicle-related Air Emissions

Detailed air quality analysis determined that the proposed project combined with background growth will not cause violations of state air quality standards for CO.

24. Stationary Source Air Emissions

Industrial uses as part of the project may include boilers, exhaust stacks, or other stationary sources of emissions. Specifics cannot be defined until specific development proposals are considered. Local permitting processes required for industrial development will provide the opportunity to identify potential uses and users subject to other applicable air emissions permit requirements.

25. Dust/Odor/Noise

Increases in dust and noise levels will occur primarily in connection with construction activities and increased traffic levels. Significant impacts were not identified.

30. Related Developments

Other vacant, developable land occurs in the vicinity of the project area. Some, or all of it, is likely to be developed within the same time frame as the proposed project and will also contribute to increased storm water runoff, and increased traffic levels. Development of these areas will result in additional export of pollutants to the Mississippi River from the same subwatershed area of which the project site is a part. However, the cumulative increase in runoff and pollutants is still an extremely small fraction of the flow in the receiving waters and is not expected to result in significant impacts. Increased traffic levels from development of the adjacent vacant properties were assumed as part of the background traffic growth used in the analysis of traffic impacts on local and regional systems, and used in the air quality impacts analysis. No significant adverse impacts were identified.

TRAFFIC ANALYSIS STUDY
SOUTH ST. PAUL HRA INDUSTRIAL PLAN

Prepared By:

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Prepared For:

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February 1992

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INTRODUCTION

BRW, Inc. has conducted a traffic impact study for industrial development proposed by the South St. Paul Housing and Redevelopment Authority (HRA) to be located on a 39.4 acre site adjacent to the west side of the Mississippi River approximately 1,800 feet north of I-494. This study is intended as an attachment to the Environmental Assessment Worksheet (EAW) submission for the proposed project.

This traffic impact study includes an assessment of existing operating conditions on area roadways surrounding the site, an estimate of future traffic volume conditions with the development in place and an assessment of future operating conditions on area roadways. Recommendations are made which identify roadway improvements that mitigate operational deficiencies indicated by the operational assessments.

EXISTING CONDITIONS

STUDY AREA

The study area identified for analysis in this report is bounded on the north by the TH 56 (Concord Street)/Hardman Avenue intersection, on the south by the I-494 interchanges with TH 56 and Hardman Avenue, on the east by the Mississippi River and on the west by TH 56. These study area boundaries are shown on the site location map (Figure 1).

Roadways

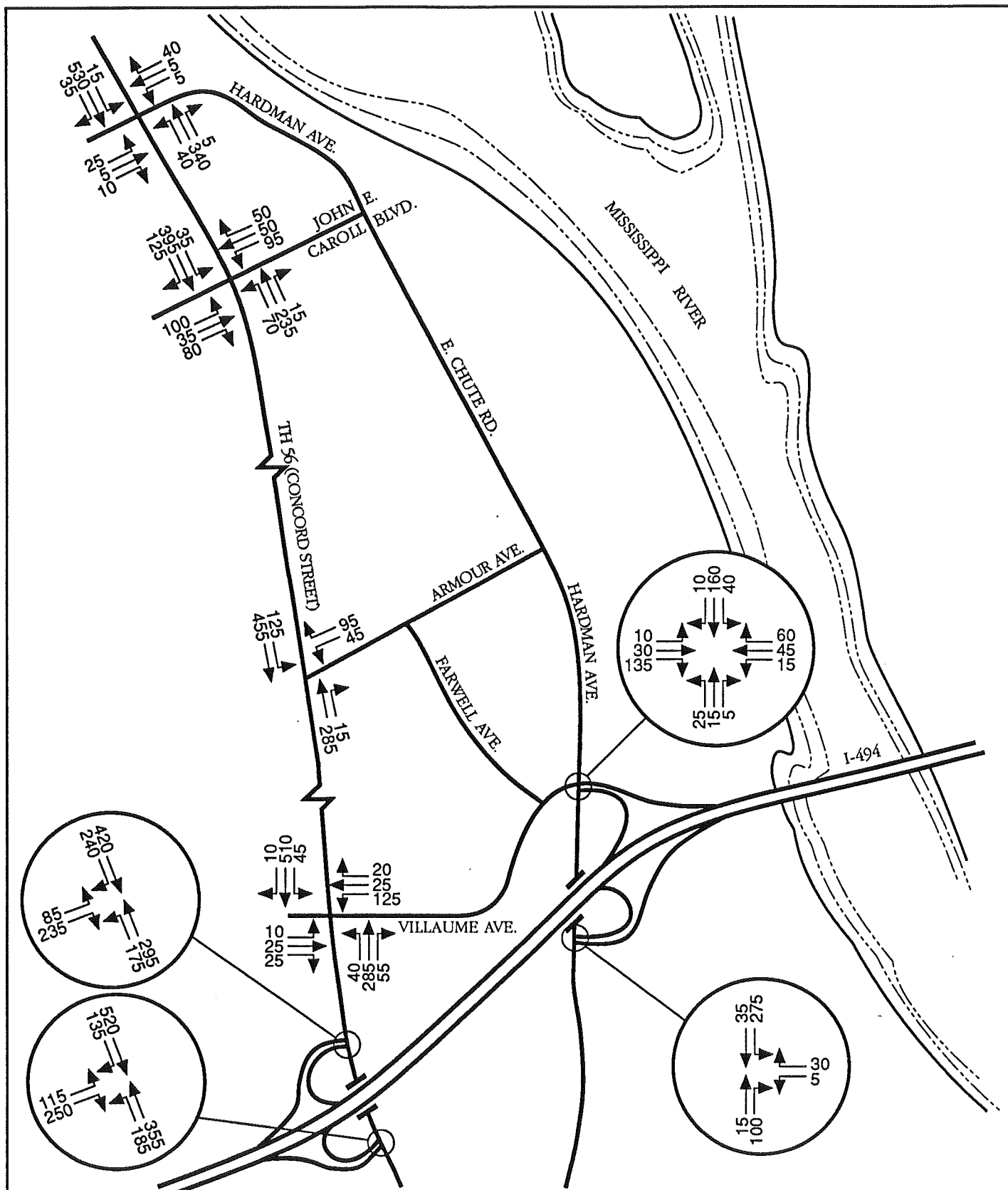
The study area includes two north-south roadways which will serve as primary access for the site; TH 56 and Hardman Avenue. The remaining east-west roadways in the study area include I-494 which provides regional access to the site and three relatively short industrial collector roadways which provide connections between Hardman Avenue and TH 56; John E. Carroll Boulevard, Armour Avenue and Villaume Avenue.

A description of the two key north-south roadways (TH 56 and Hardman Avenue) and I-494 is presented below.

- TH 56 (Concord Street)

TH 56 is a north-south arterial roadway that runs parallel to the Mississippi River and provides a connection between St. Paul and TH 3 (Lafayette Freeway) to the north with South St. Paul, Inver Grove Heights and areas to the south. TH 56 is primarily a two-lane roadway but widens to a four-lane divided facility with signalized traffic control and auxiliary turn lanes at major intersections from Wentworth Avenue southerly through the study area to south of the I-494 interchange.

Land use adjacent to TH 56 in the study area primarily consists of a mixture of Stockyards and industrial space along with a hotel, a bank and several bars and restaurants.



SOUTH ST. PAUL HRA INDUSTRIAL PLAN

Traffic Impact Study



Figure 3

**1991 Existing
Weekday PM
Peak Hour
Traffic Volumes**

TABLE 1
EXISTING LINK TRAFFIC VOLUME SUMMARY*
SOUTH ST. PAUL HRA INDUSTRIAL PLAN

Location	Date	Weekday Daily Traffic (VPD)**	AM Peak Hour		PM Peak Hour	
			Volume (VPH)***	Percent of Daily Traffic	Volume (VPH)	Percent of Daily Traffic
TH 56 south of Armour Road	12/91	13,700	575	4.2	800	5.8
Hardman Avenue south of Armour Avenue	12/91	2,500	285	11.4	295	11.8
Armour Avenue east of TH 56	----	2,500++	235	9.4	280	11.2

* All counts by BRW, Inc.

** VPD - vehicles per day.

*** VPH - vehicles per hour.

++ Daily traffic on Armour Avenue estimated based on peak hour traffic comparison with Hardman Avenue data.

OBSERVED OPERATING CHARACTERISTICS

Peak period traffic volumes appeared to be relatively moderate on both TH 56 and Hardman Avenue with vehicle queues of only three to four vehicles forming at traffic signals and STOP control approaches at unsignalized intersections. Traffic negotiating signalized intersections cleared on every signal cycle.

It was also noted that a significant portion of the vehicles on the roadway network during the PM peak hour were trucks, especially on Hardman Avenue and the east west connector streets between Hardman Avenue and TH 56. This is expected due to the heavy industrial/warehouse/stockyard use in the study area.

PLANNED IMPROVEMENTS

Hardman Avenue is to be relocated to the east in the vicinity of the site and extended northerly to John E. Carroll Boulevard by the City of South St. Paul. In addition Armour Avenue will be reconstructed for its entire length and relocated slightly to the north, east of Farwell Avenue. These roadways are being upgraded to provide adequate access to the site and are being relocated to make the land parcels in the area more feasible for development.

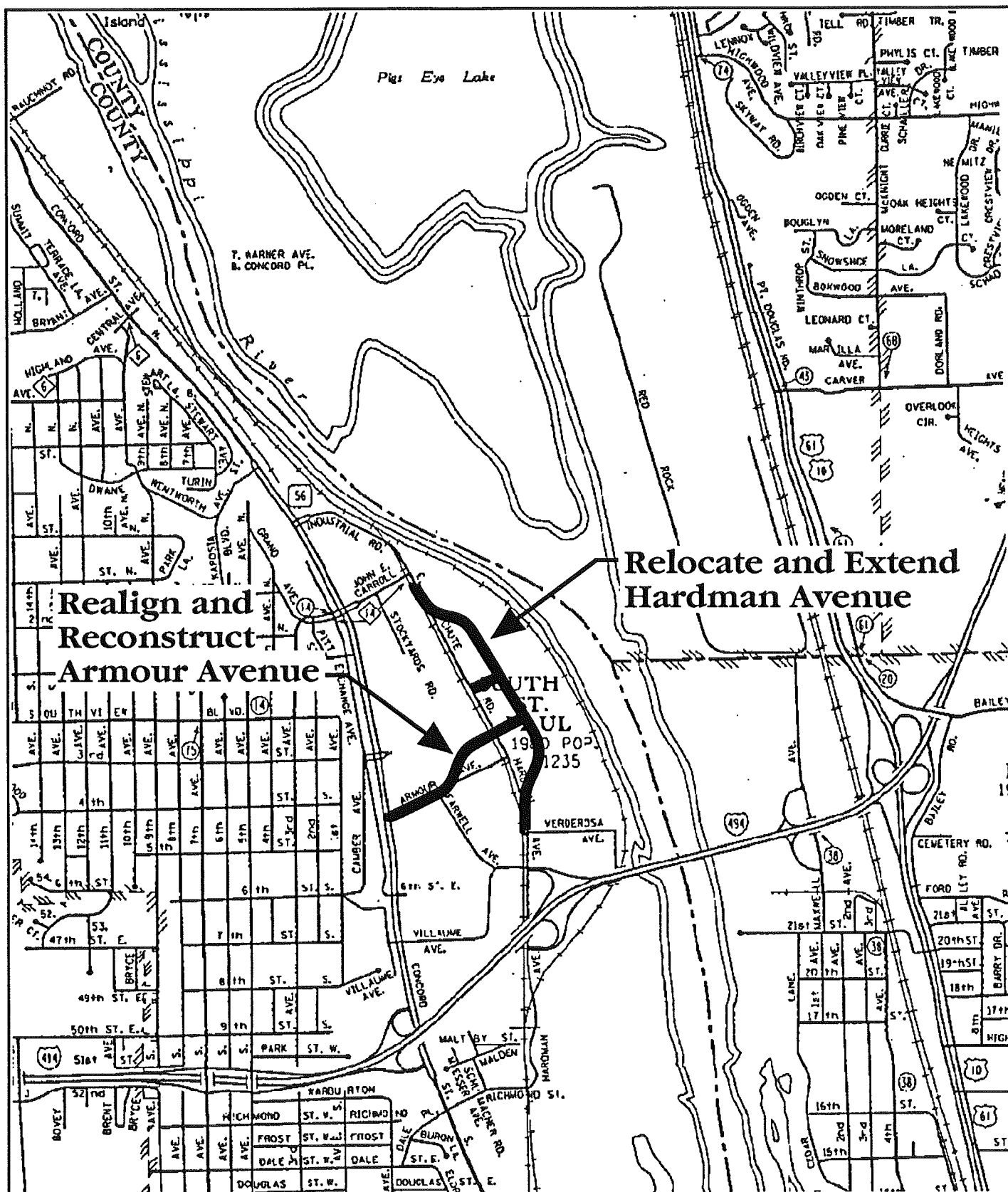
The above improvements are shown graphically in Figure 4.

Both Armour Avenue and Hardman Avenue will be 44 feet in width which will accommodate two lanes of traffic along with street-side parking. These roadway improvements have been designed and are expected to be constructed during the 1992 construction season.

The total estimated cost of the roadway improvements is \$3,168,000 with the following cost sharing approved by the City of South St. Paul:

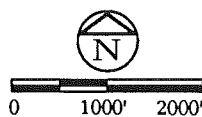
HRA	\$2,126,000
Great River Road Funds	\$ 250,000
Assessment	<u>\$ 792,000</u>
Total	\$3,168,000

The future conditions, traffic volumes and analyses contained in this report assume the above improvements are in place.



**SOUTH ST. PAUL
HRA INDUSTRIAL PLAN**

Traffic Impact Study



BRW

Figure 4

**Planned
Roadway
Improvements**

FUTURE CONDITIONS

In analyzing the transportation impacts of the project, it is necessary to estimate the amount of traffic the proposed HRA project is expected to generate along with the amount of traffic generated by other planned development (background development) which will generate traffic volumes on study area roadways. Due to the length of the anticipated build out of this project and other area background development, a design year of 2010 has been chosen for analysis purposes.

This section quantifies the level of traffic volumes that can be expected by the 2010 design year.

SITE TRAFFIC GENERATION

Expected traffic volumes to be generated by the proposed project have been estimated using the Institute of Transportation Engineers (ITE) Trip Generation Manual¹. The ITE Trip Generation Manual compiles trip generation measurements of numerous types of facilities including industrial developments throughout the country.

The land use types which can be expected on the site are difficult to estimate since the actual tenant(s) of the site are not yet known. The ITE Trip Generation Manual contains data on several land use types which may potentially occur on the project site including light industrial, heavy industrial, industrial park, manufacturing and warehousing.

Review of these land use types indicates the industrial park type use is most appropriate for estimating the trip generation of the site. Industrial parks are characterized by a mixture of manufacturing, service and warehouse facilities. In addition industrial parks generate trips at higher rates than all of the above land uses except light industrial use. Use of the industrial park trip generation data will provide a conservative assessment of the traffic impacts created by the site. (Light industrial uses are characterized by a single free standing facility devoted to a single use which is an unlikely use of the HRA property.)

¹ Institute of Transportation Engineers (ITE), Trip Generation Manual, 5th Edition, 1991.

It has been estimated that the total developable area of the HRA site is 688,000 square feet. This assumes a floor area ratio of 0.4 applied to the total 39.4 acre site.

The expected trip generation of the proposed project is shown in Table 2.

TABLE 2
HRA TRIP GENERATION SUMMARY*
SOUTH ST. PAUL HRA INDUSTRIAL PLAN

Condition	Rate**	Trips
Weekday		
Daily	6.06	4,170
AM Peak Hour:		
In	0.62	425
<u>Out</u>	<u>0.14</u>	<u>100</u>
Total	0.76	525
PM Peak Hour:		
In	0.14	95
<u>Out</u>	<u>0.54</u>	<u>375</u>
Total	0.68	470

* Based on ITE Land Use Code 130 - Industrial Park.

** Rates in trips per 1,000 square feet.

As shown in Table 2, the site is expected to generate approximately 4,170 trips (2,085 entering and 2,085 exiting) on a typical weekday. During the weekday AM Peak Hour 525 trips are expected to be generated with 425 vehicles entering and 100 vehicles exiting the site. During the weekday PM Peak Hour 470 vehicles are expected to be generated with 95 vehicles entering and 375 vehicles exiting the site.

A more detailed trip generation summary of the site appears in Table A-1 in the Appendix of this report.

SITE TRAFFIC DISTRIBUTION

The trip distribution to and from the proposed site development is affected mainly by employee commuting characteristics, especially during the peak hours.

The Metropolitan Area Regional Traffic Model has been used to estimate the trip distribution to and from the project site. This model is a land use based traffic forecasting tool which separates the Metropolitan area into traffic assignment zones (TAZ's) and assigns traffic generation to each zone. The model then assigns the trip generation of each of the zones to the regional roadway system.

Representatives of Mn/DOT ran the model for the entire roadway network with trips to and from TAZ #572 (the zone which includes the HRA land area) loaded onto the roadway network only.

Using this information the expected trip distribution of the project site has been derived. The project site trip distribution is listed below and shown graphically in Figure 5.

• TH 56 north of Hardman Avenue	25%
• TH 56 south of I-494	10%
• John E. Carroll Boulevard west of TH 56	5%
• I-494 west of TH 56 (Concord Street) Interchange	30%
• I-494 east of Hardman Avenue Interchange	30%

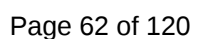
Total	100%
-------	------

BACKGROUND GROWTH

Traffic growth on study area roadways will also occur between existing and Year 2010 conditions due to development other than the proposed project. Background growth has been separated into two groups for the purposes of this study; 1) area-specific growth is that related to planned developments in the study area which will create measurable increases in study area roadway network traffic volumes, and 2) general background growth which accounts for general growth in the region outside of the study area that will create an increase in traffic volumes through the study area.

General Background Growth

Traffic volumes generated by the Metropolitan Area Regional Traffic Model have been used to estimate general background growth for the study area. Year 2010 daily assignments were compared with 1988 existing



daily traffic volumes compiled by Mn/DOT for study area roadways in order to establish a background growth rate. It is estimated that an average annual growth rate of 1 percent can be expected between existing and 2010 design conditions.

This 1 percent growth rate compounded through the Year 2010 was applied to through traffic volumes on TH 56 and movements between TH 56 and I-494 to account for regional growth outside the study area.

Because Hardman Avenue is an industrial collector roadway that serves study area parcels only, this general background growth rate for development outside the study area has not been applied to Hardman Avenue.

Area-Specific Background Growth

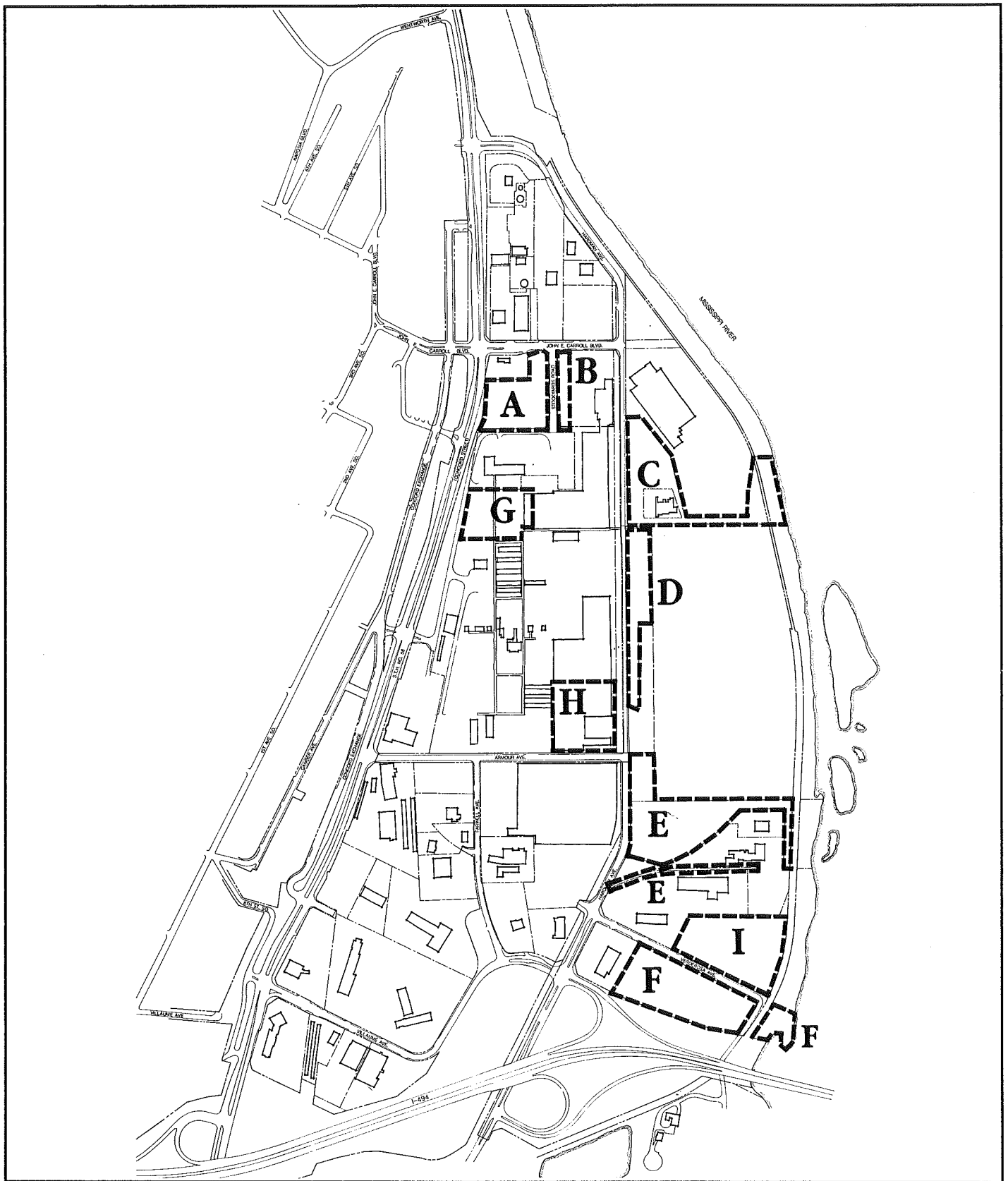
Nine parcels within the study area have been identified which are likely to be developed by the 2010 design year in addition to the HRA site. These nine parcels are listed in Table 3 and the location of these parcels are shown graphically in Figure 6.

**TABLE 3
AREA-SPECIFIC BACKGROUND DEVELOPMENT
SOUTH ST. PAUL HRA INDUSTRIAL PLAN**

Figure 6 Identification	Property Ownership	Parcel Size (Acres)	Development Size* (Thousand Sq. Ft.)
A	Canal Capital Corporation	5.09	77.6
B	Canal Capital Corporation	2.10	32.0
C	Canal Capital Corporation	6.40	97.6
D	Canal Capital Corporation	4.05	61.7
E	Canal Capital Corporation	12.87	196.2
F	Canal Capital Corporation	9.75	148.6
G	Stockyards	10.20	155.5
H	Stockyards	10.20	155.5
I	American Agco	10.00	152.5

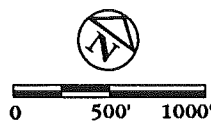
* Assumes Floor Area Ratio of 0.35.

Trip generation from each of these parcels has been estimated using the same methodology used to estimate HRA trip generation; using ITE data for industrial park type use. A summary of the trip generation estimates for the study area including site specific background development appears in Table A-1 in the Appendix of this report.



**SOUTH ST. PAUL
HRA INDUSTRIAL PLAN**

Traffic Impact Study



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Figure 6

**Background
Development
Location Map**

It is expected that the site specific background development would generate 12,240 vehicle trips on a typical weekday (6,120 entering and 6,120 exiting). During the AM Peak Hour 1,120 trips are expected to be generated with 920 vehicles entering and 200 vehicles exiting the study area. During the PM Peak Hour 975 vehicles are expected to be generated with 205 vehicles entering and 770 vehicles exiting the study area.

The trip generation of each of these background developments was assigned to the study area roadway network according to the trip distribution presented earlier.

DESIGN YEAR TRAFFIC VOLUMES

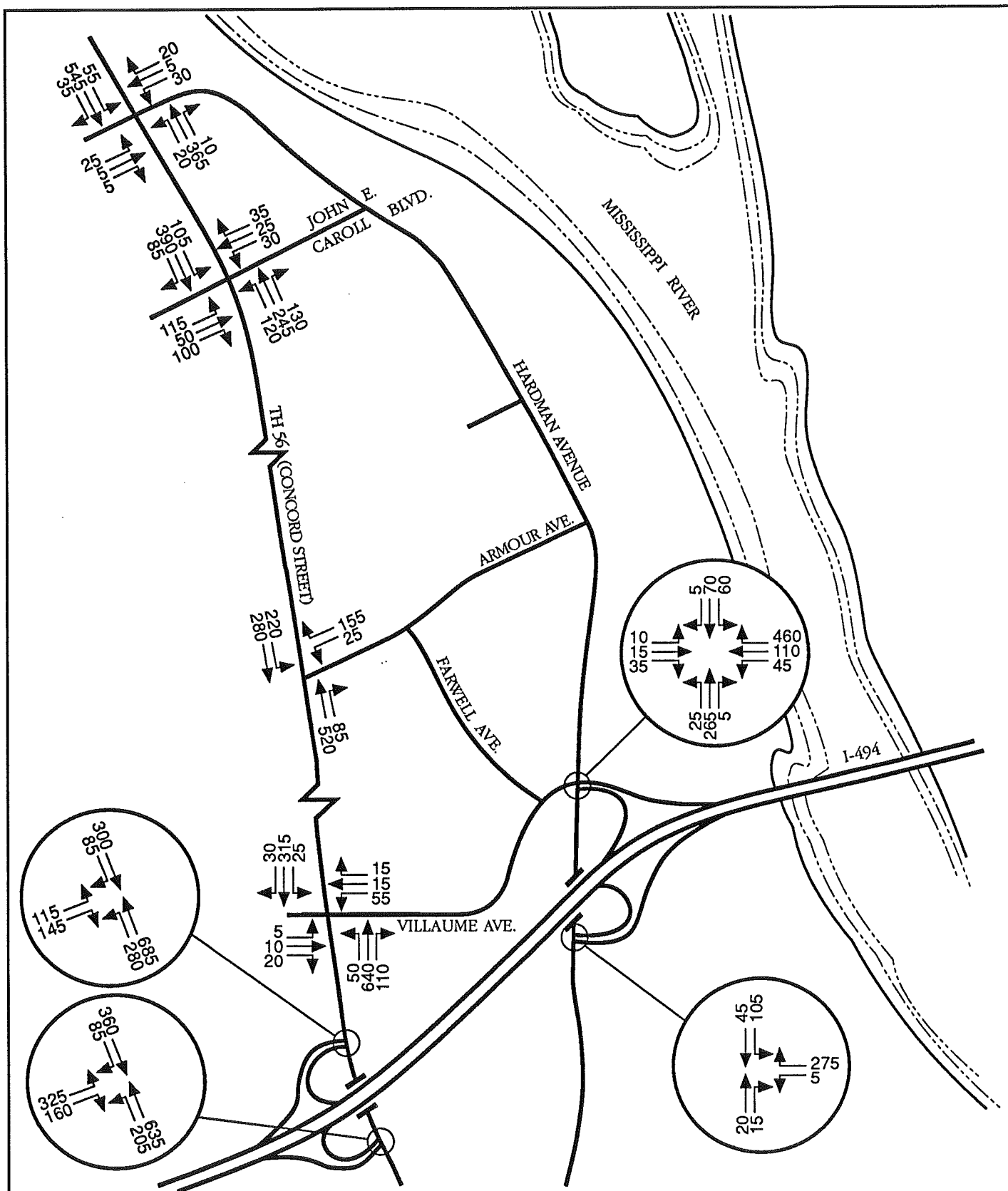
The general and site specific background growth study area roadway network assignments were added to the existing traffic volumes to produce the 2010 No-Build Weekday AM and PM Peak Hour traffic volume networks shown in Figures 7 and 8; respectively.

The trip generation assignments for the HRA site were then added to the No-Build traffic volume networks to produce the 2010 Build AM and PM Peak Hour traffic volume networks shown in Figures 9 and 10; respectively.

Table 4 summarizes the traffic volume increases at the three roadway link locations presented earlier in the existing traffic volumes section of this report.

As indicated by the traffic volume increases shown in Table 4 it is expected that Hardman Avenue and Armour Avenue will serve as primary access to the site and that TH 56 will serve traffic accessing the site primarily from the north and south.

Armour Avenue is expected to service 6,000 trips on a typical weekday with approximately 620 of these trips occurring during the peak hours.



SOUTH ST. PAUL HRA INDUSTRIAL PLAN

Traffic Impact Study

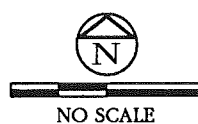
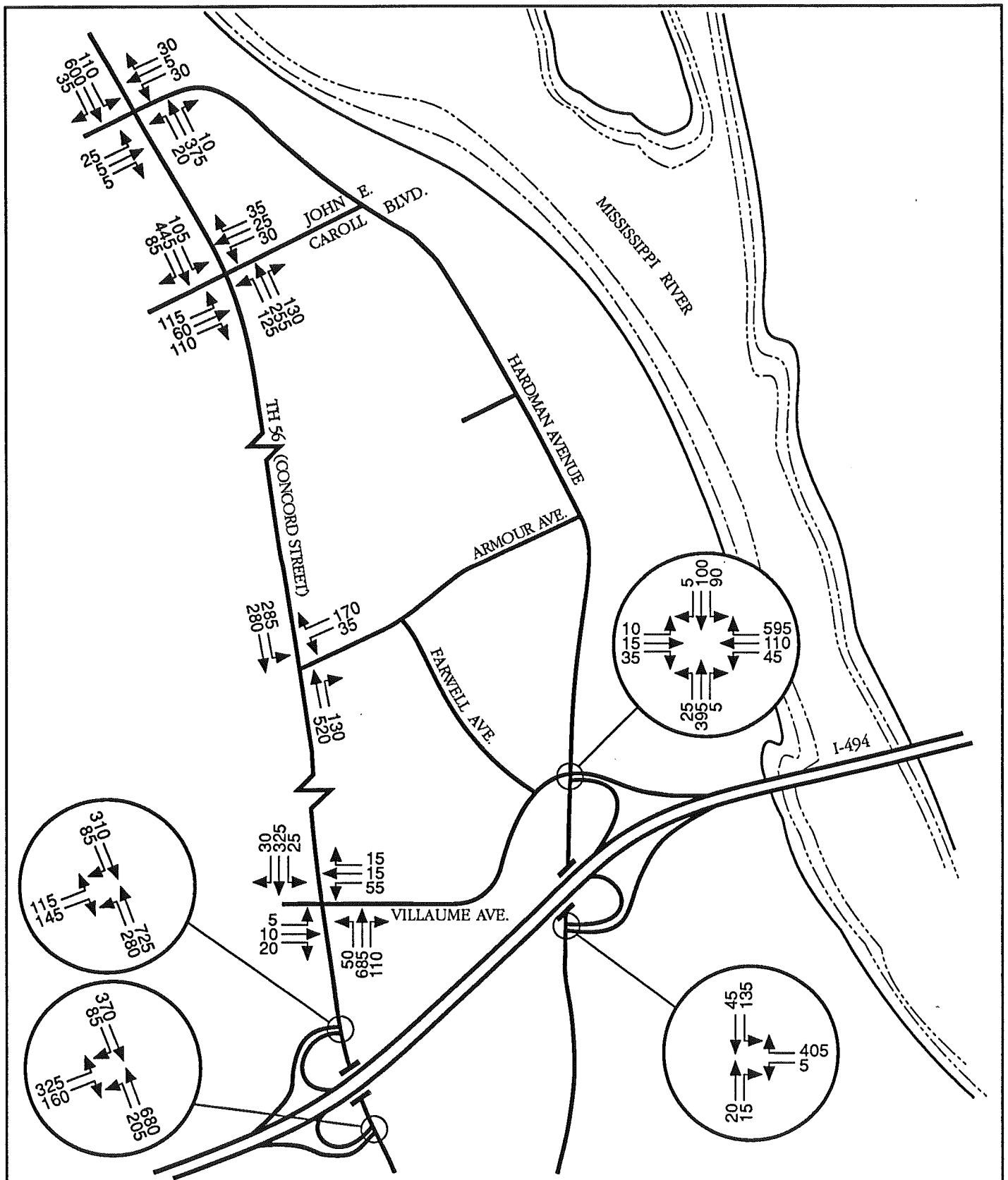


Figure 7

**2010 No-Build
Weekday AM
Peak Hour
Traffic Volumes**





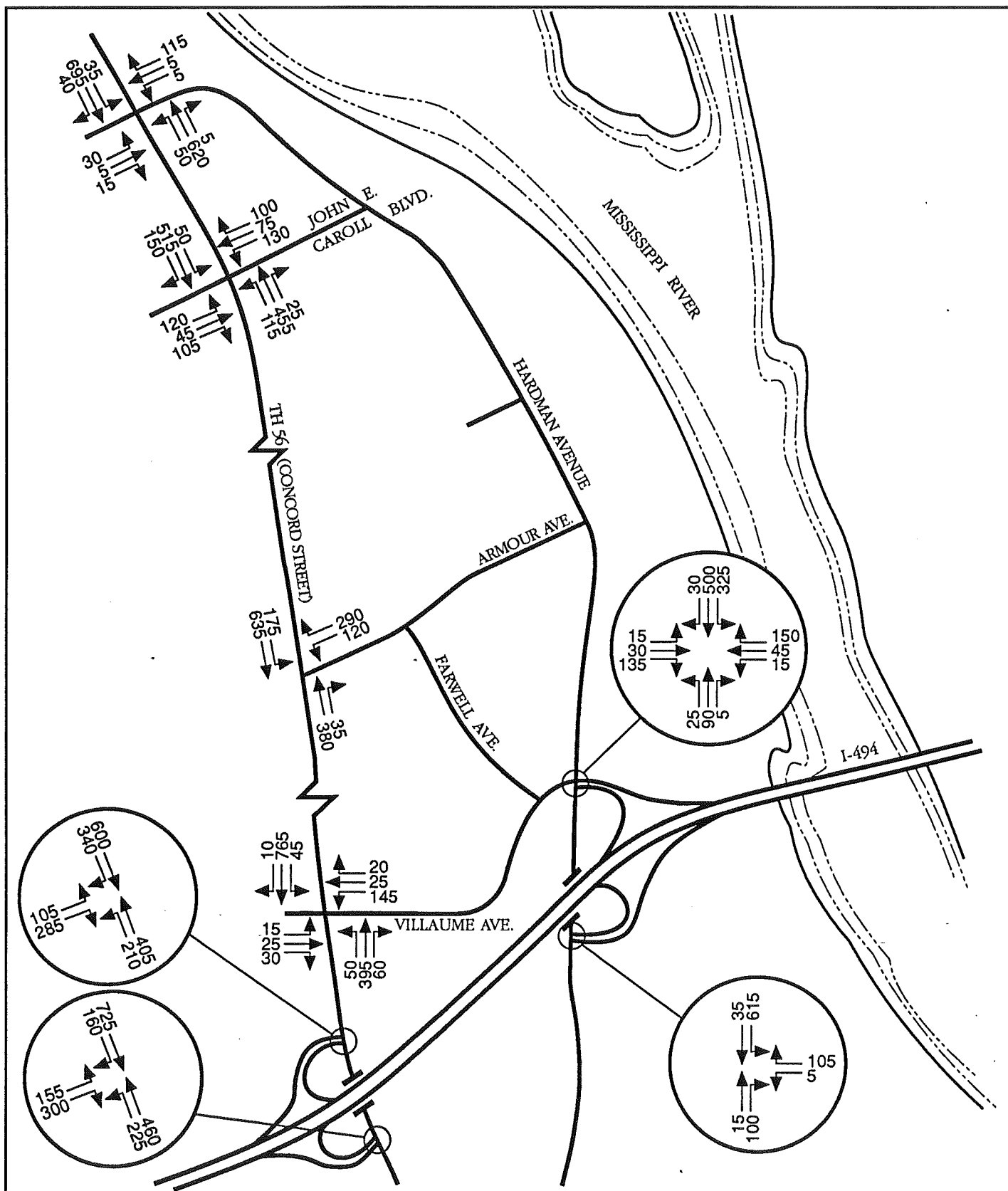
SOUTH ST. PAUL HRA INDUSTRIAL PLAN

Traffic Impact Study



Figure 9

**2010 Build
Weekday AM
Peak Hour
Traffic Volumes**



SOUTH ST. PAUL HRA INDUSTRIAL PLAN

Traffic Impact Study



Figure 10

**2010 Build
Weekday PM
Peak Hour
Traffic Volumes**

TABLE 4
TRAFFIC VOLUME INCREASES SUMMARY
SOUTH ST. PAUL HRA INDUSTRIAL PLAN

Location/ Condition	1991 Existing	2010 No-Build	2010 Build	2010 Build Increase (%) Over No-Build
TH 56 south of Armour Avenue:				
Daily*	13,700	18,600	19,000	400 (2)
AM Peak Hour**	575	910	965	55 (6)
PM Peak Hour**	800	1,100	1,170	70 (6)
Hardman Avenue south of Armour Avenue:				
Daily	2,500	7,500	10,000	2,500 (33)
AM Peak Hour	235	870	1,195	325 (37)
PM Peak Hour	295	775	1,110	335 (43)
Armour Avenue east of TH 56:				
Daily	2,500	5,000	6,000	1,000 (20)
AM Peak Hour	285	485	620	135 (28)
PM Peak Hour	280	480	620	140 (29)

* Daily volume in vehicles per day.

** Peak hour volumes in vehicles per hour.

OPERATIONAL ANALYSIS

INTRODUCTION/METHODOLOGY

The estimated traffic volumes reported for the study area roadway network indicate the importance of these roadways to the regional roadway system, but give little indication of the quality of traffic flow. To measure the quality of flow, intersection capacities were analyzed--based on the methodology contained in the 1985 Highway Capacity Manual²--at key locations with respect to the 1991 existing, 2010 No-Build and 2010 Build conditions for typical weekday AM and PM peak hours. The results of the analysis provides a valid indication of how well the roadway system serves the travel demands placed upon it now and how well it will serve demands in the future.

A primary result of the capacity analyses is the assignment of levels of service to roadway facilities under various traffic flow conditions. Level of service is defined as a qualitative measure describing operational conditions within a traffic stream and their perception by motorists and/or passengers. A level-of-service definition generally describes conditions in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. In so doing, level of service provides an index to quality of traffic flow.

Six levels of service are defined ranging from level-of-service (LOS) "A" to LOS "F", with "A" representing the best operating conditions and "F" representing the worst. In the Twin Cities Metropolitan Area LOS "D" is considered the lowest acceptable design condition and LOS "E" and "F" are considered unacceptable.

Since the level of service of a traffic facility depends on the traffic flows placed upon it, such a facility may operate at a wide range of levels of service, depending on the time of day, day of week, or period of year.

² 1985 Highway Capacity Manual, Special Report 209; Transportation Research Board, Washington, DC, (1985).

ANALYSIS RESULTS

Operational analyses were conducted at the eight key intersections within the study area. The results of these analyses are summarized in Table 5 for the signalized intersection locations and Tables 6 and 7 for the unsignalized intersection locations. These analysis results are discussed briefly below.

Signalized Intersections

As shown in Table 5, all five of the signalized intersections in the study area currently operate at level of service(LOS) "B" with ample reserve capacity to accommodate future traffic growth. Under 2010 No-Build and 2010 Build conditions four of the five intersections are expected to continue to operate at LOS "B" with the I-494 eastbound ramps at TH 56 intersection operating at LOS "C".

Unsignalized Intersections

Tables 6 and 7 present a summary of the operational analyses for the weekday AM and PM peak hours, respectively. The analysis results shown are for the most critical movements at the three key unsignalized intersections in the study area. Tables 6 and 7 also contain the analyses results of the intersection movements directly impacted by site generated traffic. The results of these analyses are discussed below by intersection.

- TH 56 at Hardman Avenue

The left turn movements from Hardman Avenue (eastbound and westbound) are critical to the operation of this intersection. These movements currently operate at LOS "C" or better except for the eastbound left turn movement during the PM peak hour which operates at LOS "D". Under 2010 No-Build conditions the Hardman Avenue left turn movements are expected to operate at LOS "D" except for the eastbound left turn movement during the PM peak hour which is expected to operate at LOS "E". Under 2010 Build conditions the Hardman Avenue left turns are expected to operate at LOS "D" during the AM peak hour and LOS "E" during the PM peak hour.

The westbound right turn movement and the southbound left turn movement are directly affected by site generated traffic and are expected to operate at LOS "A" through 2010 Build conditions.

The need for capacity improvements at this intersection is addressed in the following mitigation section of this report.

TABLE 5
SIGNALIZED INTERSECTION OPERATIONAL ANALYSIS SUMMARY*
SOUTH ST. PAUL HRA INDUSTRIAL PLAN

TH 56 (Concord Street) At:	Peak Period	1991 Existing Conditions				2010 No-Build Conditions				2010 Build Conditions			
		Average Delay**	Level of Service	Sum of Critical Movements***	Available Reserve Capacity+	Average Delay	Level of Service	Sum of Critical Movements	Available Reserve Capacity	Average Delay	Level of Service	Sum of Critical Movements	Available Reserve Capacity
John E. Carroll Boulevard	AM Peak	10	B	315	1085	11	B	455	945	12	B	490	910
	PM Peak	9	B	420	980	10	B	540	860	10	B	570	830
Armour Avenue	AM Peak	7	B	235	1165	7	B	505	895	8	B	580	820
	PM Peak	6	B	315	1085	7	B	485	915	12	B	485	915
Villaume Avenue	AM Peak	8	B	290	1110	8	B	420	980	9	B	445	955
	PM Peak	9	B	450	950	9	B	590	810	9	B	615	785
I-494 Westbound Ramps	AM Peak	11	B	445	955	13	B	545	855	13	B	550	850
	PM Peak	10	B	470	930	11	B	595	805	11	B	615	785
I-494 Eastbound Ramps	AM Peak	12	B	665	735	15	C	890	510	15	C	900	500
	PM Peak	14	B	820	580	18	C	1060	340	21	C	1105	295

* Source: 1985 Highway Capacity Manual, Special Report 209, Transportation Research Board, 1985.

** Average delay in seconds per vehicle.

*** Sum of critical movements in vehicles.

+ Available reserve capacity in vehicles.

TABLE 6
AM PEAK HOUR
UNSIGNALIZED INTERSECTION OPERATIONAL ANALYSIS SUMMARY**
SOUTH ST. PAUL HRA INDUSTRIAL PLAN

INTERSECTION/ CRITICAL MOVEMENT	1991 EXISTING CONDITIONS			2010 NO-BUILD CONDITIONS			2010 BUILD CONDITIONS		
	DEMAND VOLUME (VEHICLES)	AVAILABLE RESERVE CAPACITY (VEHICLES)	LEVEL OF SERVICE	DEMAND VOLUME (VEHICLES)	AVAILABLE RESERVE CAPACITY (VEHICLES)	LEVEL OF SERVICE	DEMAND VOLUME (VEHICLES)	AVAILABLE RESERVE CAPACITY (VEHICLES)	LEVEL OF SERVICE
TH 56 at Hardman Avenue:									
EB Left	20	341	B	25	163	D	25	112	D
WB Left	30	332	B	30	161	D	30	112	D
WB Right	10	827	A	20	782	A	30	765	A
SB Left	35	670	A	55	589	A	110	514	A
Hardman Avenue at I-494									
Westbound Ramps and									
Villaume Avenue:									
EB Left	10	410	A	10	55	E	10	*	F
WB Left	45	700	A	45	416	A	45	281	C
WB Right	185	770	A	460	231	C	595	*	F
SB Left	15	982	A	60	817	A	90	648	A
Hardman Avenue at I-494									
Eastbound Ramps:									
WB Left	5	830	A	5	726	A	5	677	A
WB Right	70	913	A	275	662	A	405	503	A
SB Left	45	945	A	105	872	A	135	835	A

* Volume exceeds available capacity of movement.

** Source: 1985 Highway Capacity Manual, Special Report 209, Transportation Research Board, 1985.

TABLE 7
PM PEAK HOUR
UN SIGNALIZED INTERSECTION OPERATIONAL ANALYSIS SUMMARY**
SOUTH ST. PAUL HRA INDUSTRIAL PLAN

INTERSECTION/ CRITICAL MOVEMENT	1991 EXISTING CONDITIONS				2010 NO-BUILD CONDITIONS				2010 BUILD CONDITIONS			
	DEMAND VOLUME (VEHICLES)	AVAILABLE RESERVE CAPACITY (VEHICLES)	LEVEL OF SERVICE		DEMAND VOLUME (VEHICLES)	AVAILABLE RESERVE CAPACITY (VEHICLES)	LEVEL OF SERVICE		DEMAND VOLUME (VEHICLES)	AVAILABLE RESERVE CAPACITY (VEHICLES)	LEVEL OF SERVICE	
TH 56 at Hardman Avenue:												
EB Left	25	178	D		30	60	E		30	44	E	
WB Left	5	213	C		5	102	D		5	87	E	
WB Right	40	774	A		65	637	A		115	543	A	
SB Left	15	665	A		25	481	A		35	424	A	
Hardman Avenue at I-494												
Westbound Ramps and												
Villaume Avenue:												
EB Left	10	531	A		15	190	D		15	70	E	
WB Left	15	446	A		15	173	D		15	69	E	
WB Right	60	926	A		115	856	A		150	809	A	
SB Left	40	951	A		195	762	A		325	602	A	
Hardman Avenue at I-494												
Eastbound Ramps:												
WB Left	5	439	A		5	217	C		5	109	D	
WB Right	30	960	A		70	911	A		105	868	A	
SB Left	275	660	A		480	409	A		615	244	C	

* Volume exceeds available capacity of movement.

** Source: 1985 Highway Capacity Manual, Special Report 209, Transportation Research Board, 1985.

- Hardman Avenue at I-494 Westbound Ramps and Villaume Avenue

The side street left turn movements to Hardman Avenue are critical to the operation of this intersection. Both of these movements currently operate at LOS "A" during both peak hours. Under 2010 No-Build conditions the eastbound left turn is expected to operate at LOS "E" during the AM peak hour and the westbound left is expected to operate at LOS "D" during the PM peak hour. Under 2010 Build conditions the eastbound left turn movement is expected to operate at LOS "F" (over capacity) during the AM peak hour and both the eastbound and westbound left turn movements are expected to operate at LOS "E" during the PM peak hour.

The westbound right turn movement and the southbound left turn movement are directly affected by site generated traffic. Both of these movements operate at LOS "C" or better under existing and 2010 No-Build conditions. Under Build conditions the westbound right is expected to operate at LOS "F" (over capacity) during the AM peak hour. As shown in Table 6 the demand for this movement is expected to be 595 vehicles during the AM peak hour.

The need for capacity improvements at this intersection is discussed in the following mitigation section of this report.

- Hardman Avenue at I-494 Eastbound Ramps

All movements at this intersection currently operate at LOS "A" during both peak hours. These operations are expected to continue through 2010 Build conditions for the AM peak hour. For the PM peak hour the westbound left is expected to degrade to LOS "D" and the southbound left is expected to degrade to LOS "C".

I-494 MISSISSIPPI RIVER CROSSING DISCUSSION

A capacity problem currently exists on the I-494 bridge over the Mississippi River just east of the study area. I-494 transitions from a six-lane section west of the Mississippi to a four-lane section on the bridge. Vehicle backups occur in the eastbound direction during the PM peak period as traffic merges from three traffic lanes down to two.

The HRA project will add 1,250 daily trips to the I-494 bridge crossing of the Mississippi (an increase of 2.6 percent over the 1988 Mn/DOT volume of 48,000 vehicles per day). During the Weekday AM peak hour the HRA project will add 160 vehicles and during the Weekday PM peak hour the project will add 140 vehicles to the I-494 bridge.

Although not programmed, nor funded at this time, Mn/DOT is aware of the long-term need and has acquired the necessary right-of-way in conjunction with the recent modifications to the Hardman Avenue interchange to allow for future widening of the I-494 bridge.

MITIGATION

The operational analysis contained in this report indicates that the study area roadway network is adequate to accommodate future development through the Year 2010. All five of the signalized intersections along TH 56 are expected to operate at an acceptable level of service (LOS "D" or better) through 2010 Build conditions. However, operational deficiencies exist at two of the unsignalized locations in the study area which are discussed below.

- TH 56 at Hardman Avenue

The left turn movements from Hardman Avenue to TH 56 are expected to operate at LOS "E" during the 2010 Build PM peak hour. However, because the demand for these movements is small (30 vehicles eastbound, 5 vehicles westbound) and the potential for these movements to reorient themselves to signalized access to TH 56 via John E. Carroll Boulevard or Wentworth Avenue (eastbound only) it is not felt that mitigation is appropriate at this location.

In addition, the location of the traffic signals on both sides of the Hardman Avenue intersection on TH 56 at Wentworth Avenue and John E. Carroll Boulevard create gaps in TH 56 through traffic which may make operations for these left turn movements better than the analysis indicates.

- Hardman Avenue/I-494 Westbound Ramp/Villaume Avenue

The eastbound left and the westbound right turn demand at the Hardman/I-494 westbound ramp/Villaume Avenue intersection are expected to exceed the capacities of these movements under 2010 AM peak hour conditions. The heavy westbound right turn movement of 595 vehicles under 2010 Build AM peak hour conditions would have a significant affect on the operations of the intersection. An operational analysis of this intersection assuming a free right turn under YIELD control for the westbound right turn movement has been conducted for 2010 Build conditions and is presented in Table 8.

**TABLE 8
UNSIGNALIZED INTERSECTION OPERATIONAL
ANALYSIS SUMMARY
HARDMAN AVENUE/I-494 WESTBOUND RAMPS/VILLAUME
AVENUE W/FREE RIGHT TURN WESTBOUND
2010 BUILD CONDITIONS**

Peak Period/ Critical Movement	Demand Volume	Available Reserve Capacity (vehicles)	Level of Service (vehicles)
AM Peak:			
EB Left	10	231	C
WB Left	45	281	C
SB Left	90	648	A
PM Peak:			
EB Left	15	109	D
WB Left	15	69	E
SB Left	325	609	A

As shown in Table 8 all of the critical intersection movements would operate at LOS "D" or better except for the westbound left turn movement during the PM peak hour which would operate at LOS "E". It should be noted that the demand for this movement is only 15 vehicles and therefore excessive vehicle queue backups would not be a concern. In addition, these movements have the option of reorienting via Farwell and Armour Avenues.

Operational results are not reported for the westbound right turn movement because it would be physically separated from the intersection.

A summary of the need for mitigation by intersection is shown in Table 9.

**TABLE 9
NEED FOR MITIGATION SUMMARY
SOUTH ST. PAUL HRA INDUSTRIAL PLAN**

LOCATION	NEED FOR MITIGATION
TH 56 at John E. Carroll Boulevard	No
TH 56 at Armour Avenue	No
TH 56 at Villaume Avenue	No
TH 56 at I-494 Westbound Ramps	No
TH 56 at I-494 Eastbound Ramps	No
TH 56 at Hardman Avenue	No
Hardman Avenue at I-494 Eastbound Ramps	No
Hardman Avenue at I-494 Westbound Ramps and Villaume Avenue	Yes

RECOMMENDATIONS

It is recommended that a free right turn be constructed for the I-494 westbound off-ramp movement to Hardman Avenue northbound. This movement should be separated from the Hardman Avenue/I-494 Westbound ramps/Villaume Avenue intersection by a raised median and be under YIELD control. A sketch of this improvement is shown in Figure A-7 in the Appendix.

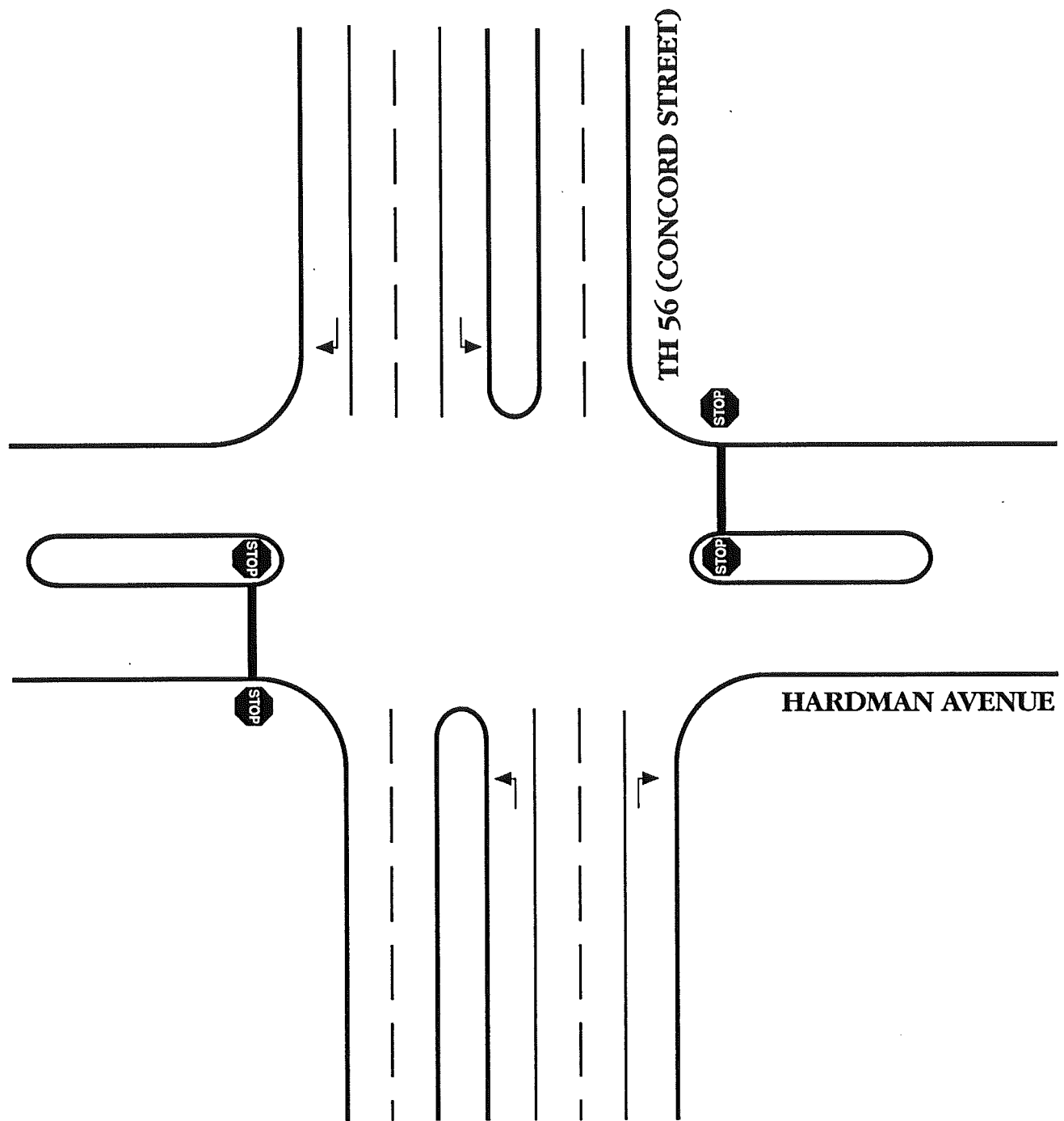
CONCLUSIONS

With the mitigation measures recommended in this report the study area roadway system is expected to experience acceptable operations through the 2010 design year with the HRA project in place.

APPENDIX

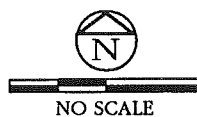
INTERSECTION GEOMETRIC SKETCHES

HRA AND BACKGROUND DEVELOPMENT
TRIP GENERATION SUMMARY



**SOUTH ST. PAUL
HRA INDUSTRIAL PLAN**

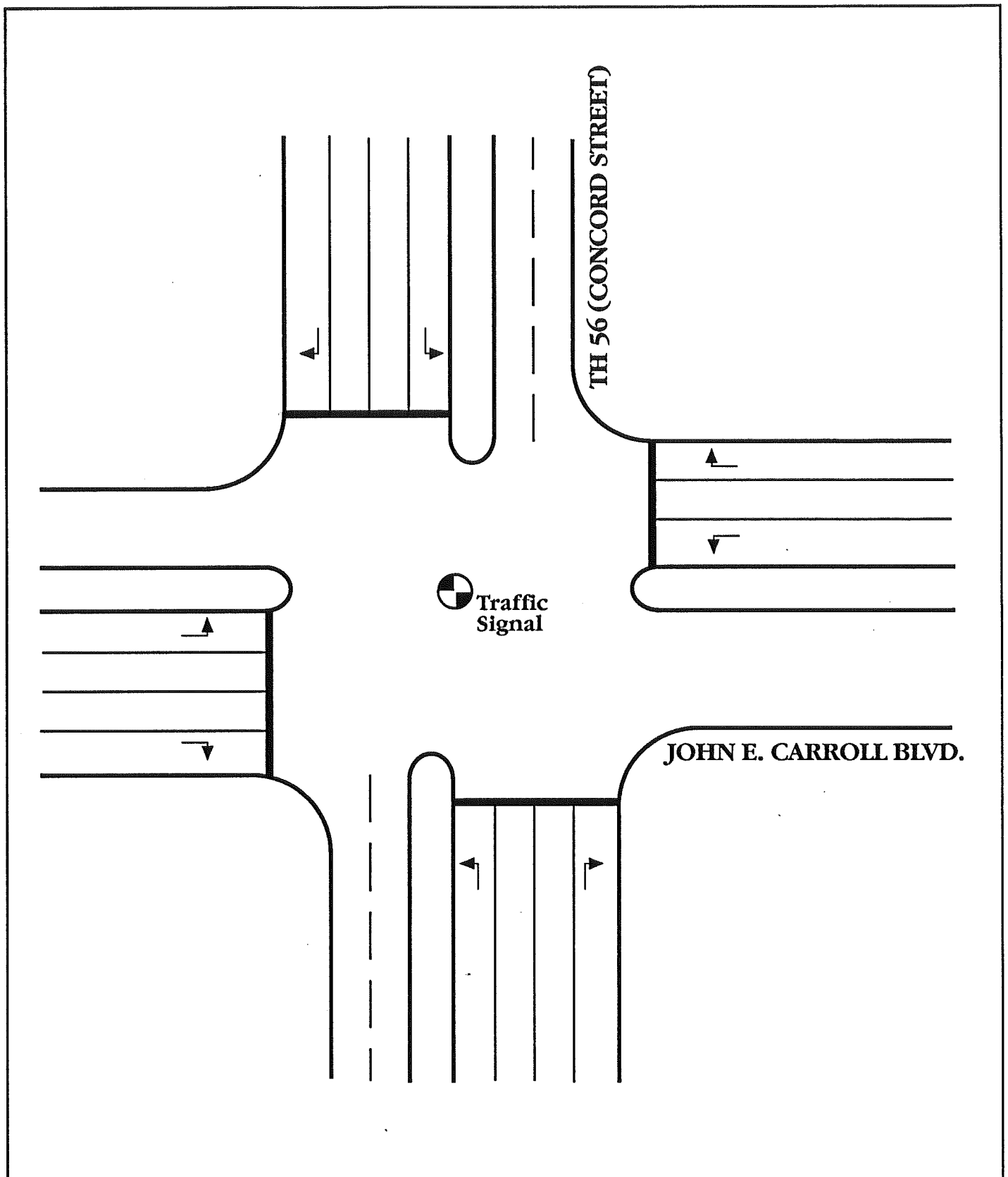
Traffic Impact Study



BRW

Figure A-1

**TH 56 (Concord St.)
At Hardman Ave.
Geometric Sketch**



**SOUTH ST. PAUL
HRA INDUSTRIAL PLAN**

Traffic Impact Study



B R W

Figure A-2

**TH 56 (Concord St.)
At John E. Carroll
Boulevard
Geometric Sketch**

TH 56 (CONCORD STREET)



Traffic
Signal



ARMOUR AVENUE



**SOUTH ST. PAUL
HRA INDUSTRIAL PLAN**

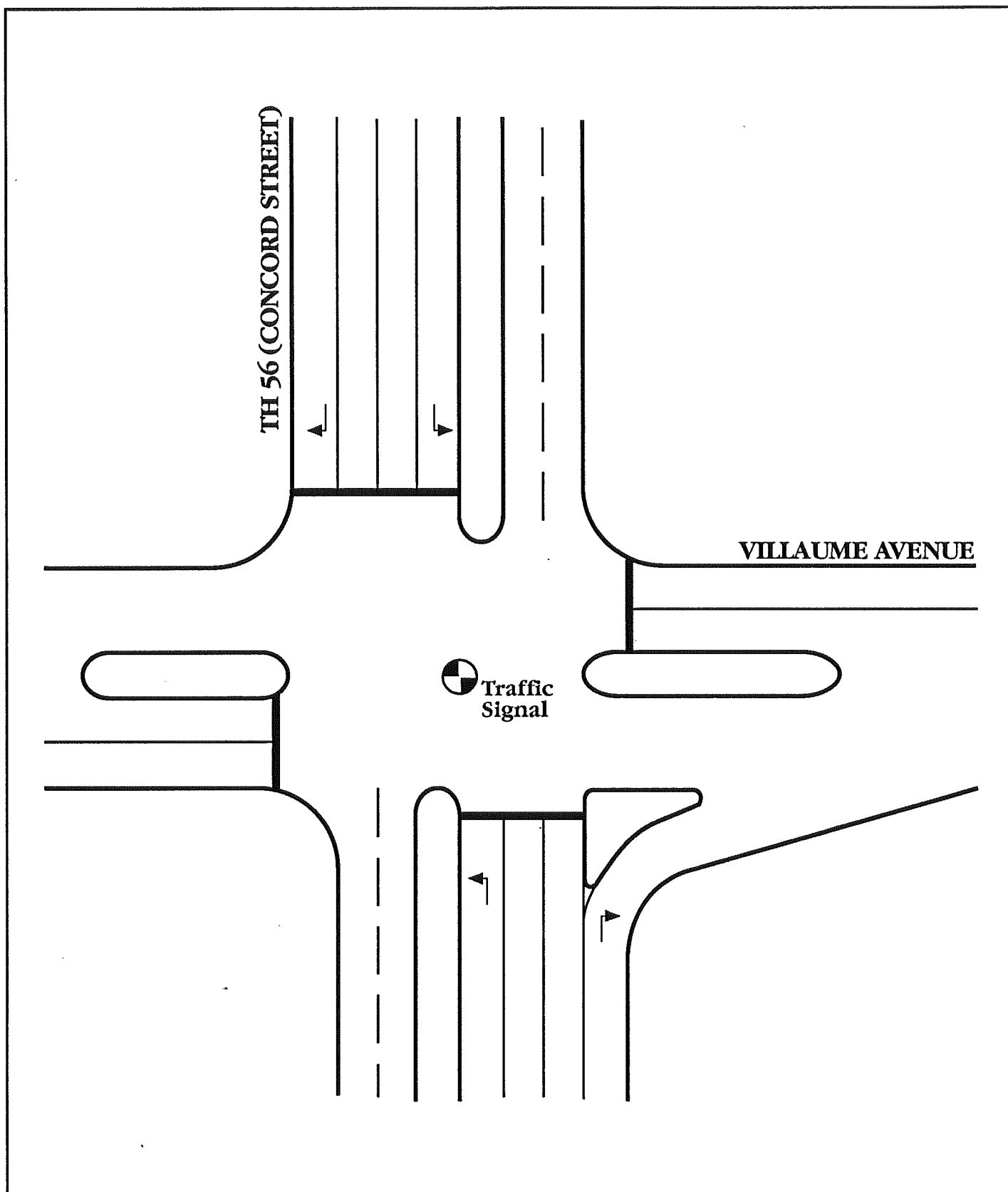
• • •

Traffic Impact Study



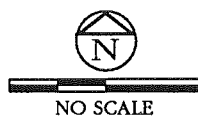
Figure A-3

**TH 56 (Concord St.)
At Armour Avenue
Geometric Sketch**



**SOUTH ST. PAUL
HRA INDUSTRIAL PLAN**

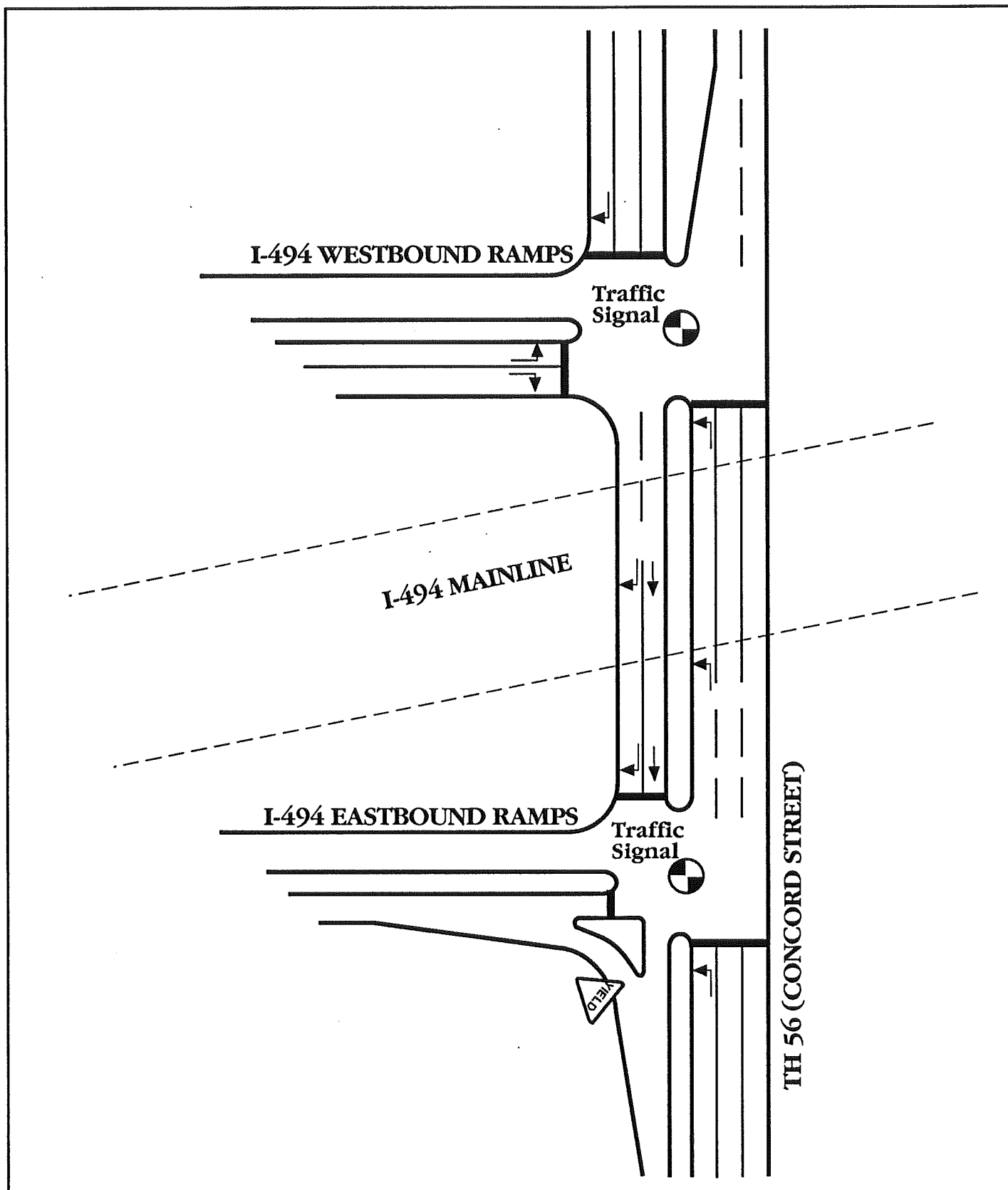
Traffic Impact Study



BRW

Figure A-4

**TH 56 (Concord St.)
At Villaume Avenue
Geometric Sketch**



**SOUTH ST. PAUL
HRA INDUSTRIAL PLAN**

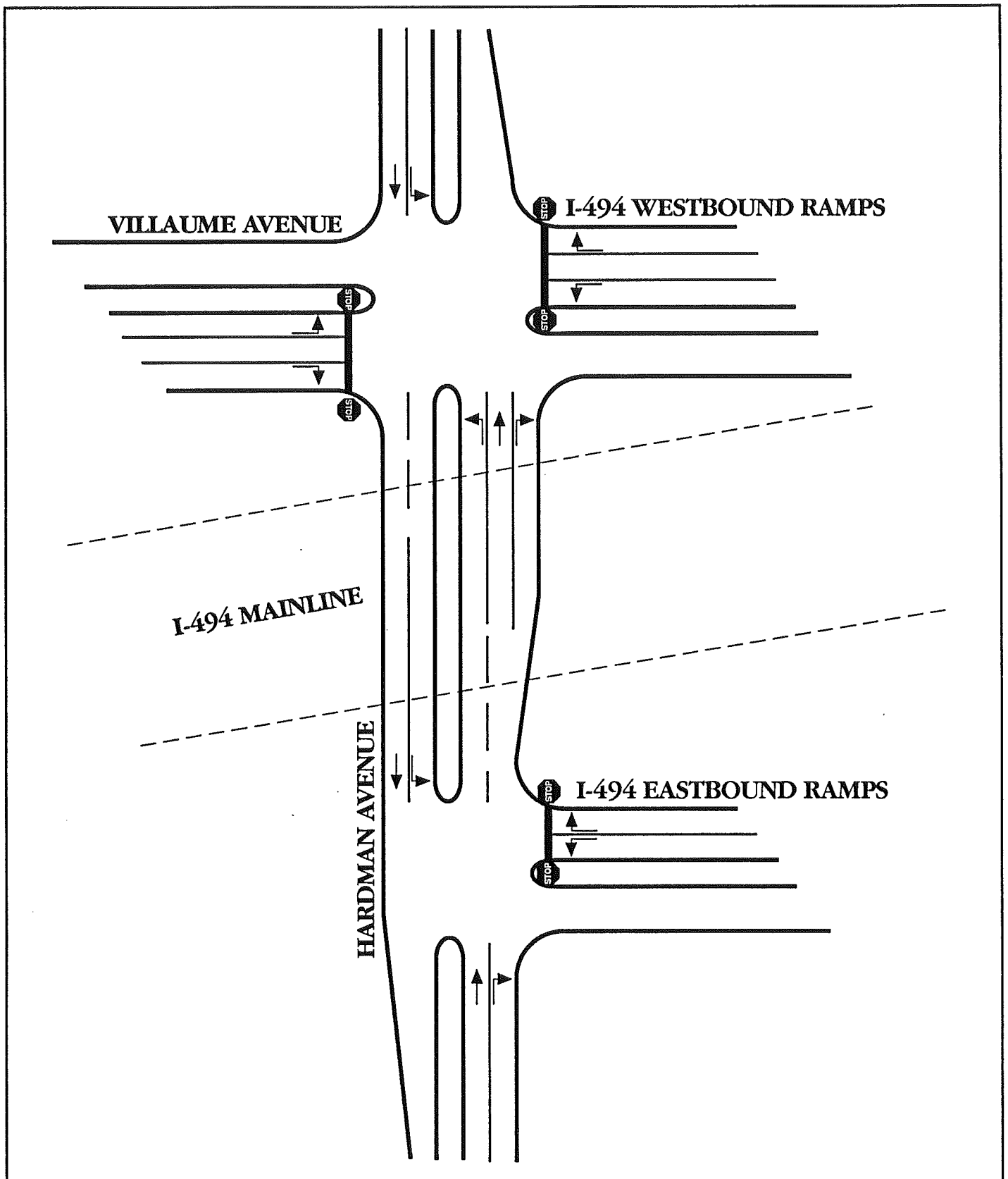
Traffic Impact Study



BRW

Figure A-5

**TH 56 (Concord St.)
I-494 Interchange Area
Geometric Sketch**



**SOUTH ST. PAUL
HRA INDUSTRIAL PLAN**

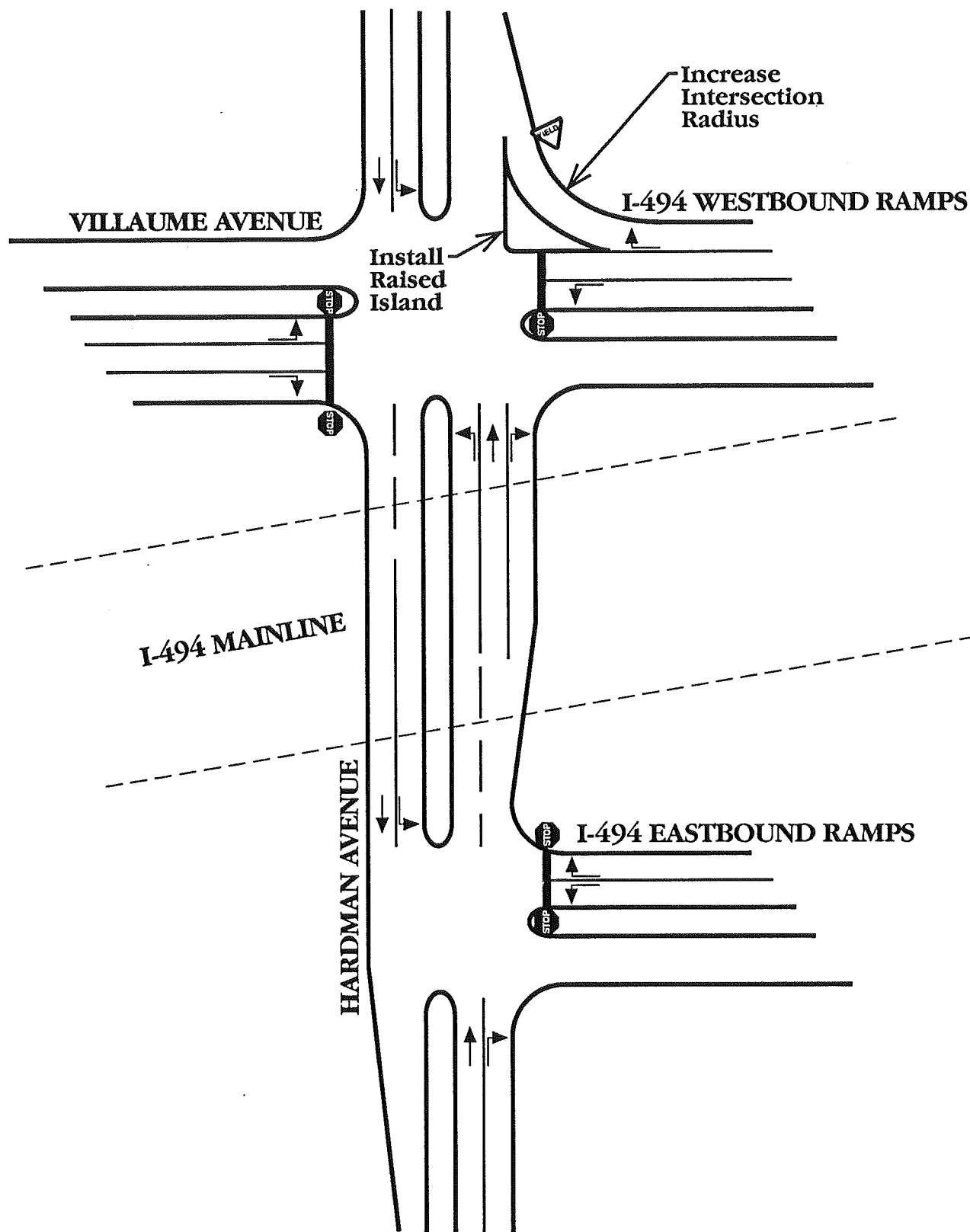
Traffic Impact Study



BRW

Figure A-6

**Hardman Avenue/
I-494 Interchange Area
Geometric Sketch**



**SOUTH ST. PAUL
HRA INDUSTRIAL PLAN**

Traffic Impact Study



BRW

Figure A-7

**Proposed
Mitigation Sketch
Hardman Avenue/
I-494 Interchange Area**

TABLE A-1
SOUTH ST. PAUL HRA INDUSTRIAL PLAN
TRIP GENERATION SUMMARY
STUDY AREA BACKGROUND DEVELOPMENT AND HRA SITE

PROPERTY/ FIGURE 3 IDENT.	DEVELOPABLE LAND AREA (ACRES)	FLOOR AREA RATIO	DEVELOPABLE BUILD AREA (KSF)**	DAILY TRIP RATE***	AM PEAK HOUR		PM PEAK HOUR					
					RATE***	TRIPS	RATE***	TRIPS				
<u>BACKGROUND DEVELOPMENT</u>												
CANAL CAPITAL:												
A	5.09	0.35	77.6	14.81	1.13	90	0.93	75				
B	2.10	0.35	32.0	28.86	1.33	45	0.95	30				
C	6.40	0.35	97.6	12.80	1.09	105	0.92	90				
D	4.05	0.35	61.7	17.35	1.18	75	0.94	60				
E	12.87	0.35	196.2	8.85	0.96	190	0.87	170				
F	9.75	0.35	148.6	10.10	1.01	150	0.89	135				
STOCKYARDS:												
G	10.20	0.35	155.5	9.87	1.00	155	0.89	140				
H	10.20	0.35	155.5	9.87	1.00	155	0.89	140				
AMERICAN AGCO:												
I	10.00	0.35	152.5	9.97	1.00	155	0.89	135				
BACKGROUND SUBTOTAL					1,077.3	11.36	12,240	1.04	1,120	0.91	975	
HRA SITE					39.40	0.40	688.0	0.76	525	0.68	470	
STUDY AREA TOTAL					110.06		1,765.3	9.29	16,410	0.92	1,645	1,445

* Based on ITE Trip Generation Manual, 5th Edition, 1991.

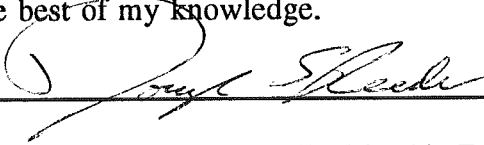
** KSF - Thousand Square Feet

*** All rates in trips per thousand square feet

CERTIFICATIONS BY THE RGU (all 3 certifications must be signed for EQB acceptance of the EAW for publication of notice in the EQB Monitor)

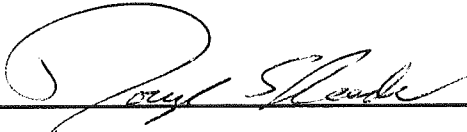
- A. I hereby certify that the information contained in this document is accurate and complete to the best of my knowledge.

Signature



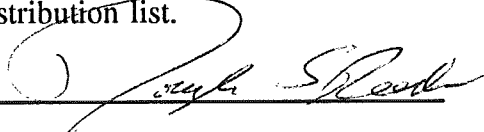
- B. I hereby certify that the project described in this EAW is the complete project and there are no other projects, project stages, or project components, other than those described in this document, which are related to the project as "connected actions" or "phased actions," as defined, respectively, at Minn. Rules, pts. 4410.0200, subp. 9b and subp. 60.

Signature



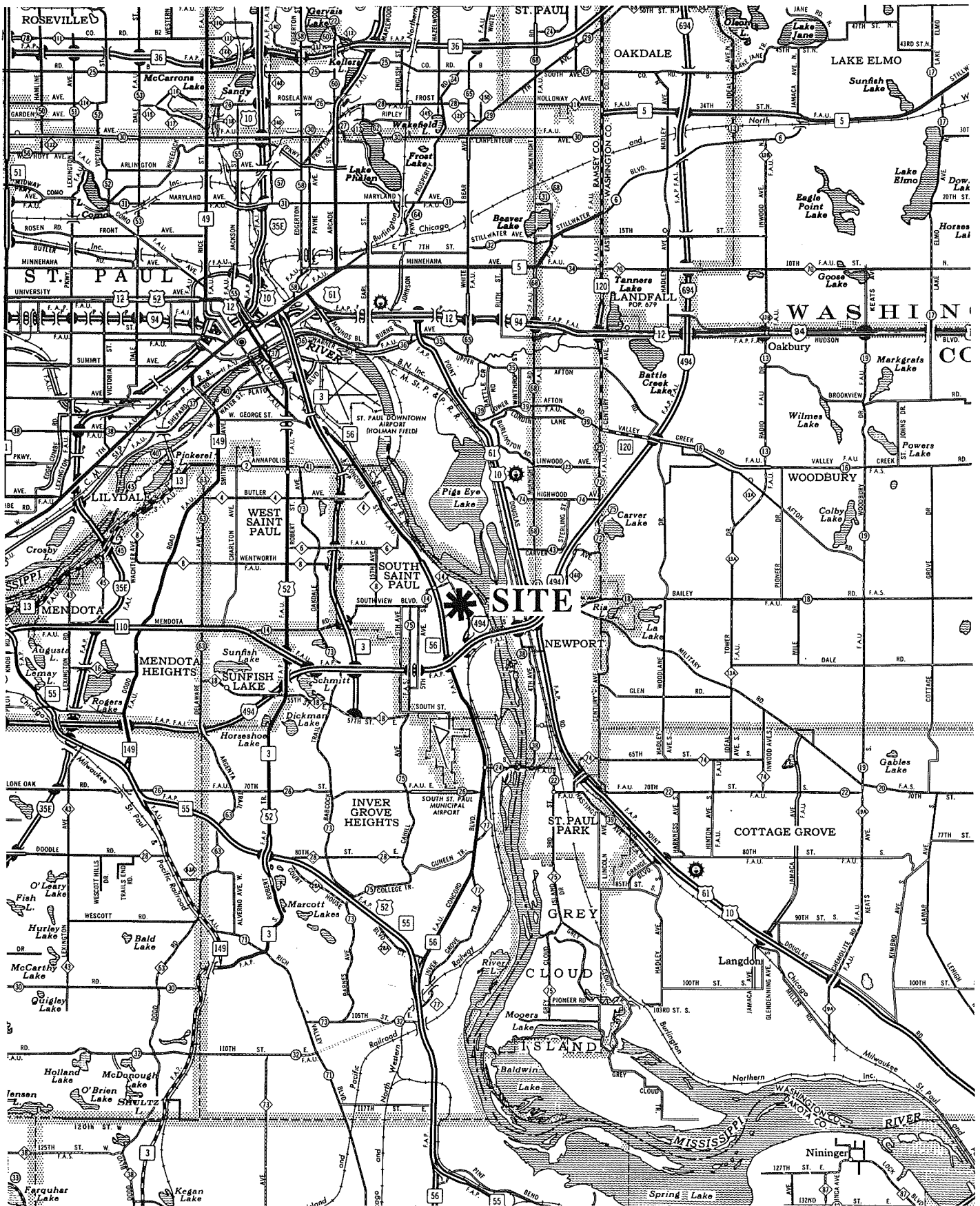
- C. I hereby certify that copies of the completed EAW are being sent to all points on the official EQB EAW distribution list.

Signature



Title of signer City Administrator

Date July 22, 1992

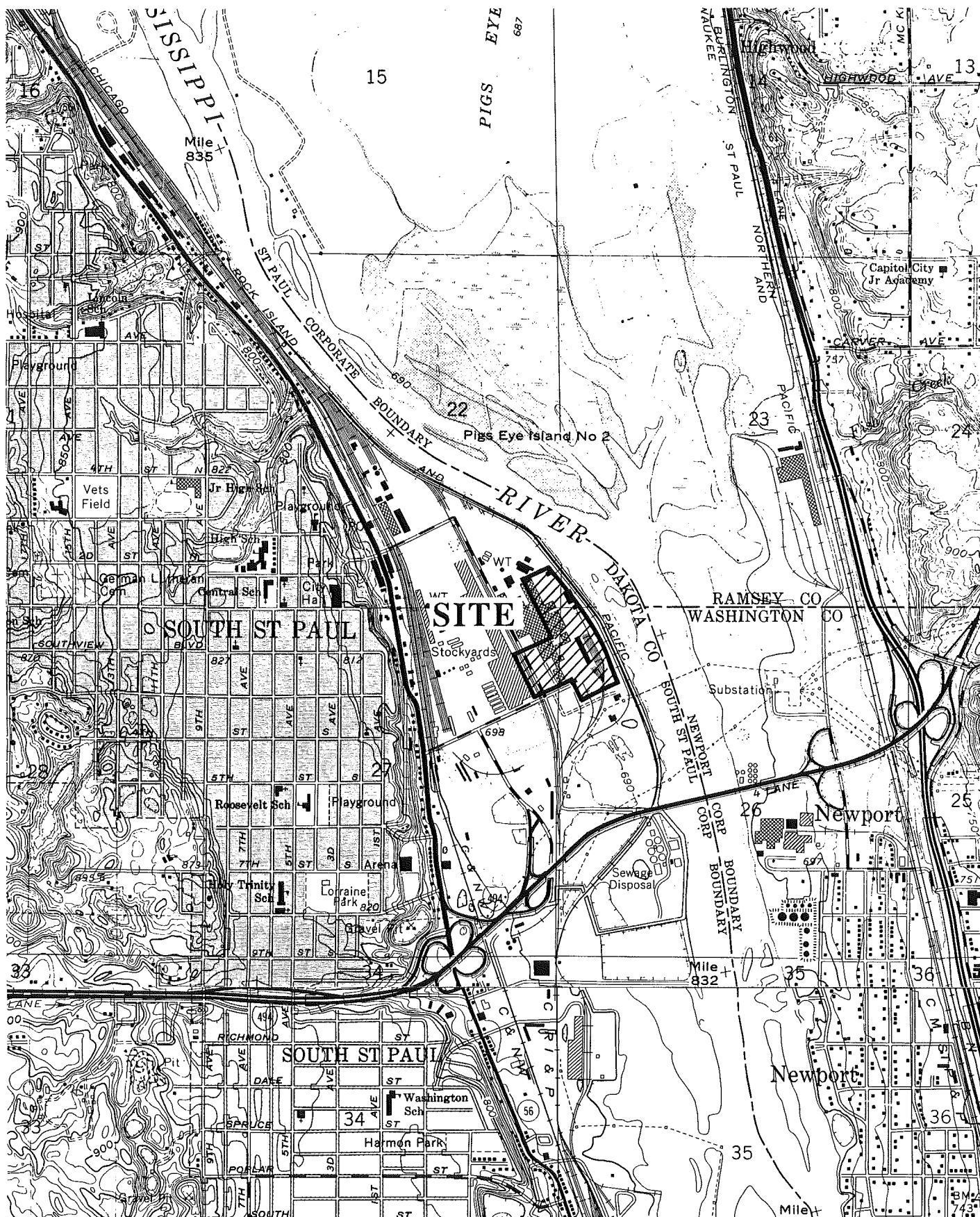


Armour Site Industrial Redevelopment EAW
Housing and Redevelopment Authority of South St. Paul

Project Location Map



Exhibit A



Armour Site Industrial Redevelopment EAW
Housing and Redevelopment Authority of South St. Paul

USGS Map

Exhibit B

Site Summary

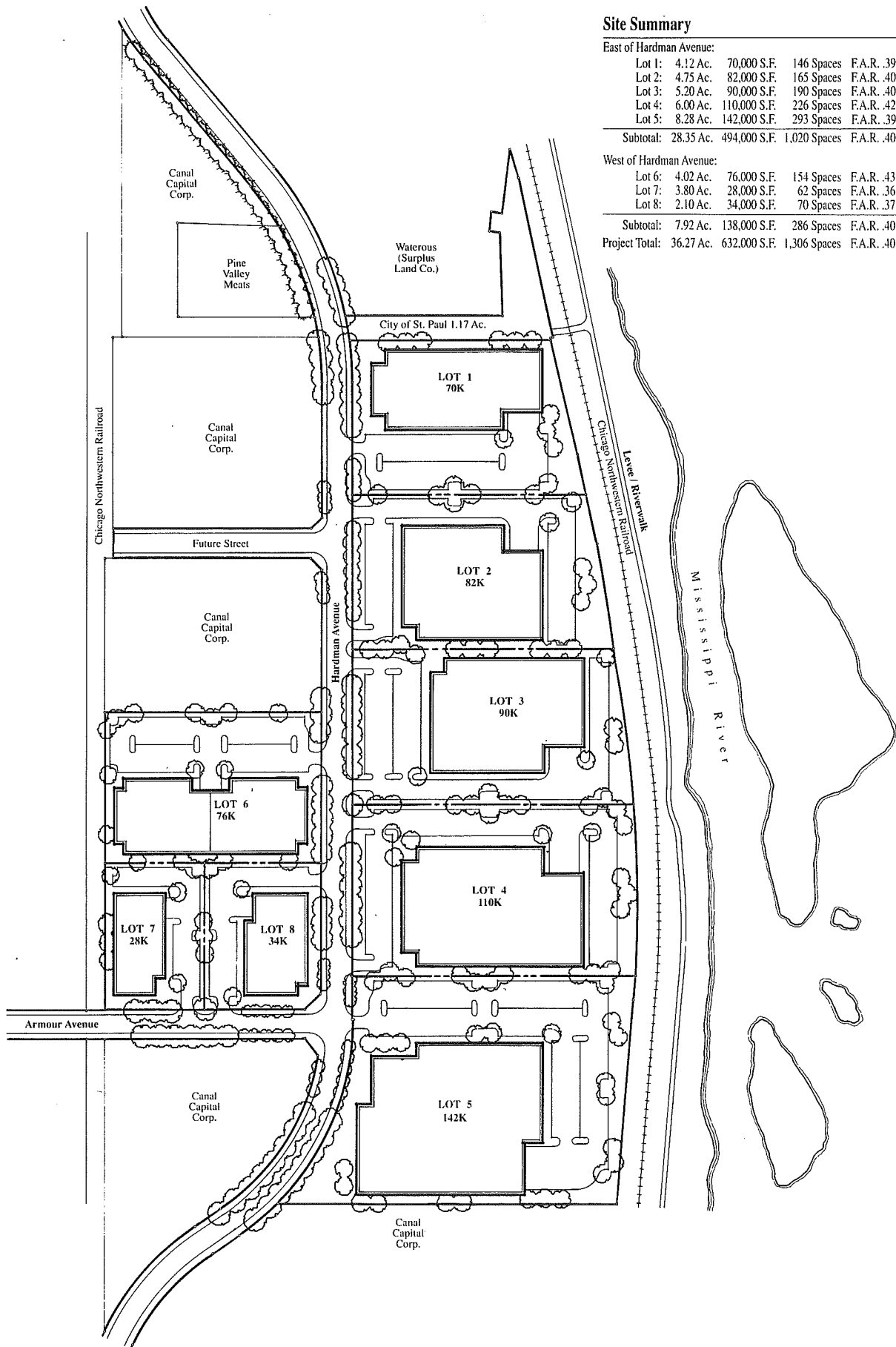
East of Hardman Avenue:

Lot 1:	4.12 Ac.	70,000 S.F.	146 Spaces	F.A.R. .39
Lot 2:	4.75 Ac.	82,000 S.F.	165 Spaces	F.A.R. .40
Lot 3:	5.20 Ac.	90,000 S.F.	190 Spaces	F.A.R. .40
Lot 4:	6.00 Ac.	110,000 S.F.	226 Spaces	F.A.R. .42
Lot 5:	8.28 Ac.	142,000 S.F.	293 Spaces	F.A.R. .39
Subtotal:	28.35 Ac.	494,000 S.F.	1,020 Spaces	F.A.R. .40

West of Hardman Avenue:

Lot 6:	4.02 Ac.	76,000 S.F.	154 Spaces	F.A.R. .43
Lot 7:	3.80 Ac.	28,000 S.F.	62 Spaces	F.A.R. .36
Lot 8:	2.10 Ac.	34,000 S.F.	70 Spaces	F.A.R. .37
Subtotal:	7.92 Ac.	138,000 S.F.	286 Spaces	F.A.R. .40

Project Total: 36.27 Ac. 632,000 S.F. 1,306 Spaces F.A.R. .40



Armour Site Industrial Redevelopment EAW

Housing and Redevelopment Authority of South St. Paul

Proposed Development Plan

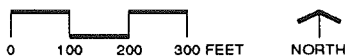


Exhibit C



Armour Site Industrial Redevelopment EAW
Housing and Redevelopment Authority of South St. Paul

SCS Soils Map

Exhibit D



STATE OF
MINNESOTA
DEPARTMENT OF NATURAL RESOURCES

500 LAFAYETTE ROAD • ST. PAUL, MINNESOTA • 55155-40⁰⁷

DNR INFORMATION
(612) 296-6157

February 24, 1992

Beth Kunkel
BRW Inc.
700 3rd St. So.
Mpls, MN 55415

Re: Redevelopment of old Armour site in south St. Paul

Dear Ms. Kunkel:

The Minnesota Natural Heritage database has been reviewed to determine if any rare plant or animal species or other significant natural features are known to occur within one mile of the above referenced project. According to the database, a colonial waterbird nesting site and a floodplain forest are present in section 22 of Township 28N, Range 22W. A full record printout and index are included with this letter. Both elements occur within the Pigs Eye Island Heron Rookery Scientific and Natural Area which extends from SE section 15, south into NE section 22, and west into W section 23.

The Natural Heritage database is maintained by the Natural Heritage Program and the Nongame Wildlife Program, units within the Section of Wildlife, Department of Natural Resources. It is the most complete source of data on Minnesota's rare, endangered, or otherwise significant plant and animal species, plant communities, and other natural features, and is used in fostering better understanding and protection of these rare features. The information in the database is drawn from many parts of Minnesota, and is constantly being updated, but it not based on a comprehensive survey of the state. Therefore, there are currently many significant natural features present in the state which are not represented by the database. We are in the process of addressing this problem via the Minnesota County Biological Survey, a county-by-county inventory of rare natural features, which is now underway. Ramsey county has been completed, with the Pigs Eye SNA surveyed as part of the county survey.

Thank you for consulting us on this matter, and for your interest in minimizing impacts on Minnesota's rare resources. Please be aware that review by the Natural Heritage and Nongame Programs focuses only on rare natural features. It does not constitute review or approval by the Department of Natural Resources as a whole.

An invoice for the work completed will be forthcoming. You are being billed for map and computer search and staff scientist review. Billings are done quarterly by the State Department of Administration in March, June, September, and December.

Sincerely,

Bonita Eliason

Bonita Eliason
Endangered Species Environmental Review Coordinator
Natural Heritage and Nongame Wildlife Programs
612/296-8324



STATE OF
MINNESOTA
DEPARTMENT OF NATURAL RESOURCES

500 LAFAYETTE ROAD • ST. PAUL, MINNESOTA • 55155-40_____

DNR INFORMATION
(612) 296-6157

July 22, 1992

Ms. Jeanne Witzig
BRW, Thresher Square
700 Third St. So.
Minneapolis, Minnesota 55415

Dear Ms. Witzig,

Bald eagles occur year round in the South St. Paul portion of the Mississippi River corridor. The one bald eagle breeding territory encompasses the entire Pig's Eye peninsula area of Battle Creek park along the east side of the Mississippi River (river mile 833.5 to 836). The currently active nest site, established in 1989 is located approximately 1-1/2 river miles north of the Armour Industrial Redevelopment site on the opposite side of the river. The nest is situated slightly north of the north boundary of the Pig's Eye Island Heron Rookery Scientific and Natural Area. (See attached map which indicates the 1/4 mile buffer zone around the currently active nest).

Tall trees are an essential component of bald eagle habitat. Because of the absence of vegetative cover on the Armour site, eagles are not likely to occur on the property. However, on July 21st, I observed an immature eagle perched in the trees on the larger island immediately adjacent to the Armour site. I presume it was one of the three young fledged this year from the Pig's Eye territory.

Bald eagles also occur in winter along the South St. Paul portion of the Mississippi River. Their known winter use areas include the trees on the shoreline at Port Crosby, Pig's Eye Island No. 1, and the entire west shore of the Pig's Eye peninsula to the south end of the heronry.

The tree covered islands off the Armour site would provide suitable winter roosting or perch sites. The absence of large trees along the levee on the west shore of the river from south of the Port Crosby property to the Packer Terminal property one half mile south of the I-494 bridge make this stretch of shoreline unsuitable for wintering eagles.

The west shore south of Maldon Road is vegetated and used by eagles throughout the winter. Eagles regularly occur along the Packer preserve shoreline one mile south of the Armour site.

Please call if you have any questions.

Sincerely,


JOAN GALLI

TKDA

ENGINEERS ARCHITECTS PLANNERS

TOLTZ, KING, DUVALL, ANDERSON
AND ASSOCIATES, INCORPORATED

2500 AMERICAN NATIONAL BANK BUILDING
SAINT PAUL, MINNESOTA 55101-1893
612/292-4400
FAX 612/292-0083

July 16, 1991

Ms. Branna K. Lindell
Executive Director
Housing and Redevelopment Authority
City of South St. Paul
125 Third Avenue N.
So. St. Paul, MN 55075

JUL 17 1991

Re: Well Abandonment
at Former Armour Plant
So. St. Paul, MN
Commission No. 9404-03

Dear Ms. Lindell:

We are enclosing the Well Abandonment Certifications and State Withholding Affidavit No. 134 submitted by Bergerson-Caswell, Inc. in order that final payment may be made.

Sincerely,



Douglas Hagel

DH/ll

Enclosure

REC'D JUL 3 1991

JUL 01 1991

Form
IC-134
Rev. 9/89Minnesota Department of Revenue
Withholding Affidavit for Contractors

JUL 1 1991

This affidavit must be approved by the Minnesota Department of Revenue before the State of Minnesota or any of its subdivisions can make final payment to contractors.

Company name Bergerson-Caswell, Inc.	Minnesota ID number #8281307
Address 5115 Industrial Street	Month/year work began 3/91
City Maple Plain State MN Zip Code 55359	Month/year work ended 5/91
	Total contract amount: \$124,407.98
Telephone number (612) 479-3121	Amount still due: 6,220.40
Did you have employees work on this project? yes If none, explain who did the work:	Project number: HRA-1989-01
	Project location: South St. Paul, MN.
	Project owner: City of South St. Paul
	Address 125 3rd Avenue North, Rm. 111, South St. Paul, MN 55078

Check the box that describes your involvement in the project and fill in all information requested in that category:

☐ **Sole contractor**☐ **Subcontractor** If you are a subcontractor, fill in the name and address of the contractor that hired you:☒ **Prime Contractor** If you subcontracted out any work on this project, all of your subcontractors must file their own IC-134 affidavits and have them certified by the Department of Revenue before you can file your affidavit. For each subcontractor you had, fill in the business information below, and attach a copy of each subcontractor's certified IC-134. (If you need more space, attach a separate sheet.)

Business name	Address	Owner/Officer

I declare that all information I have filled in on this form is true and complete to the best of my knowledge and belief. I authorize the Department of Revenue to disclose pertinent information relating to this project, including sending copies of this form, to the prime contractor if I am a subcontractor, and to any subcontractors if I am a prime contractor, and to the contracting agency.

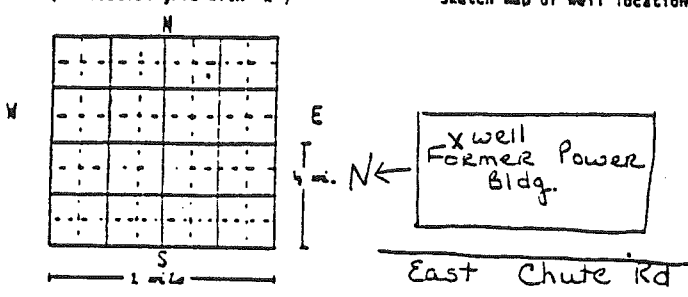
Contractor's signature John W. Henrich	Title John W. Henrich, President	Date 5/15/91
--	--	------------------------

For certification, mail to:
Minnesota Department of Revenue, Business Trust Tax Section
Mail Station 6610, St. Paul, MN 55146-6610**Certificate of Compliance with Minnesota Income Tax Withholding Law**

Based on records of the Minnesota Department of Revenue, I certify that the contractor who has signed this certificate has fulfilled all the requirements of Minnesota Statutes 290.92 and 290.97 concerning the withholding of Minnesota income tax from wages paid to employees relating to contract services with the state of Minnesota and/or its subdivisions.

Signature of authorized Department of Revenue official [Signature]	Date JUL 01 1991
--	----------------------------

**STATE OF MINNESOTA DEPARTMENT OF HEALTH
ABANDONED WELL RECORD**

1. LOCATION OF WELL					MINNESOTA UNIQUE WELL NO. (leave blank if not known)	
County Name <u>Dakota</u>						
Township Name South St. Paul	Township Number 28	Range Number 22	Section No. 27	Fraction NE NE NE	4. WELL DEPTH (completed) 897 ft.	Date sealed 4/26/91
Numerical Street Address and City of Well Location or Distance from Road Intersection 300 Hardman Avenue					5. DRILLING METHOD (if known) ☒ Cable tool ☐ Reverse ☐ Driven ☐ Aug ☐ Hollow Rod ☐ Air ☐ Bored ☐ _____ ☐ Rotary ☐ Jetted ☐ Power Auger	
Show exact location of well (in section grid with "X") 					6. OBSTRUCTIONS Well obstructed ☒ Yes ☐ No Obstructions removed ☒ Yes ☐ No If obstructions cannot be removed, contact MDH before sealing.	
2. PROPERTY OWNER'S NAME South St. Paul HRA Mailing Address if different than property address indicated above 125 3rd Avenue N., Rm. 111 S. St. Paul, MN 55075-2097					7. USE ☐ Domestic ☐ Monitoring ☐ Heat Load ☐ Irrigation ☐ Public ☒ Industry ☐ Test Well ☐ Municipal ☐ Commercial ☐ Air Conditioning ☐ _____	
3. FORMATION LOG COLOR HARDNESS OF FORMATION FROM TO If not known, indicate formation log from new well or nearby well.					8. CASING(S) ☒ Black ☐ Threaded ☐ _____ ☐ Galv. ☐ Welded ☐ Plastic ☐ Stainless Steel 20 in. to 160 ft. _____ in. to _____ ft.	
16. REMARKS, ELEVATION, SOURCE OF DATA - CASINGS REMOVED, CASINGS PERFORATED, ETC. 					9. SCREEN ☐ Screened well from _____ ft. to _____ ft. (If known) ☒ Open Hole from 183 ft. to 897 ft.	
					10. STATIC WATER LEVEL _____ ft. ☒ below ☐ above land surface Date Measured <u>4/26/91</u>	
					11. WELLHEAD COMPLETION ☐ Pitless Adapter ☐ Found Buried ☒ Basement offset ☐ _____ ☐ Well Pit	
					12. GROUTING INFORMATION ☒ Neat Cement ☐ Bentonite ☐ _____ Grout material <u>neat</u> from 0 to 630 ft. cu. yds. 72	
					13. NEAREST SOURCES OF CONTAMINATION _____ feet _____ direction _____ type Well disinfected before sealing? ☒ Yes	
14. PUMP ☐ Removed ☒ Not Present Type: ☐ Submersible ☐ L.S. Turbine ☐ Reciprocating ☐ Jet ☐ Centrifugal ☐ _____						
15. EXISTING WELLS (Please sketch locations of abandoned and active wells in remarks section or on back.) Other unused well(s) on property? ☒ Yes ☐ No Abandoned: ☒ Permanent ☐ Temporary ☐ Not sealed						
17. WATER WELL CONTRACTORS CERTIFICATION This well was sealed under my jurisdiction and this report is true to the best of my knowledge and belief. Bergerson-Caswell, Inc. 27058 Licensee Business Name License No. Address <u>5115 Industrial Street</u> Signed <u>Dave Eisinder</u> Date <u>5/26/91</u> Name of Driller Date <u>5/26/91</u>						

OFFICIAL ABANDONED WELL RECORD (May be used for Property Transfer)

IMPORTANT: FILE WITH DEED

Page 103 of 120

STATE OF MINNESOTA DEPARTMENT OF HEALTH
ABANDONED WELL RECORD

1. LOCATION OF WELL					MINNESOTA UNIQUE WELL NO. (Leave blank if not known)	
County Name <u>Dakota</u>						
Township Name South St. Paul	Township Number 28 ^N or ^S	Range Number 22 ^E or ^W	Section No. 27	Fraction $\frac{1}{4}$ of $\frac{1}{4}$ NE NE NE	4. WELL DEPTH (completed) 910 ft.	Date sealed 5/7/91
Numerical Street Address and City of Well Location or Distance from Road Intersection 300 Hardman Avenue					5. DRILLING METHOD (if known) ☒ Cable tool ☐ Reverse ☐ Driven ☐ Dug ☐ Hollow Rod ☐ Air ☐ Bored ☐ ☐ Rotary ☐ Jetted ☐ Power Auger	
Show exact location of well (In section grid with "X") 					6. OBSTRUCTIONS Well obstructed ☐ Yes ☒ No Obstructions removed ☐ Yes ☐ No If obstructions cannot be removed, contact MDH before sealing.	
2. PROPERTY OWNER'S NAME South St. Paul HRA Mailing Address if different than property address indicated above 125 3rd Avenue N., Rm. 111 S. St. Paul, MN 55075-2097					7. USE ☐ Domestic ☐ Monitoring ☐ Heat Loop ☐ Irrigation ☐ Public ☒ Industry ☐ Test Well ☐ Municipal ☐ Commercial ☐ Air Conditioning ☐	
3. FORMATION LOG COLOR HARDNESS OF FORMATION FROM TO If not known, indicate formation log from new well or nearby well.					8. CASING(S) ☒ Black ☐ Threaded ☐ ☐ Galv. ☐ Welded ☐ Plastic ☐ Stainless Steel 20 in. to 204 ft. 12 in. to 446 ft.	
					9. SCREEN ☐ Screened well from _____ ft. to _____ ft. (If known) ☒ Open Hole from 446 ft. to 745 ft.	
					10. STATIC WATER LEVEL 38 ft. ☒ below ☐ above land surface Date Measured 4/5/91	
					11. WELLHEAD COMPLETION ☐ Pitless Adapter ☐ Found Buried ☒ Basement offset ☐ ☐ Well Pit	
					12. GROUTING INFORMATION ☒ Wet Cement ☐ Bentonite ☐ Sand & Pea Rock Grout material neat from 0 to 745 ft. cu. yds 58 sand & pea rock 680 745 85	
					13. NEAREST SOURCES OF CONTAMINATION _____ feet _____ direction _____ type Well disinfected before sealing? ☒ Yes	
16. REMARKS. ELEVATION, SOURCE OF DATA - CASINGS REMOVED, CASINGS PERFORATED, ETC.					14. PUMP ☐ Removed ☒ Not Present Type: ☐ Submersible ☐ L.S. Turbine ☐ Reciprocating ☐ Jet ☐ Centrifugal ☐	
					15. EXISTING WELLS (Please sketch locations of abandoned and active wells in remarks section or on back.) Other unused well(s) on property? ☒ Yes ☐ No Abandoned: ☒ Permanent ☐ Temporary ☐ Not sealed	
					17. WATER WELL CONTRACTORS CERTIFICATION This well was sealed under my jurisdiction and this report is true to the best of my knowledge and belief. Bergerson-Caswell, Inc. 27058 Licensee Business Name License No. Address 5115 Industrial Street Signed <u>Dave Eisinger</u> Date 6/7/91 Name of Driller Date 6/7/91	
					OFFICIAL ABANDONED WELL RECORD (May be used for Property Transfer) IMPORTANT: FILE WITH DEED	

**STATE OF MINNESOTA DEPARTMENT OF HEALTH
ABANDONED WELL RECORD**

1. LOCATION OF WELL					MINNESOTA UNIQUE WELL NO. (leave blank if not known)	
County Name <u>Dakota</u>						
Township Name <u>South St. Paul</u>	Township Number <u>28</u> ^N _{OF} <u>5</u>	Range Number <u>22</u> ^E _{OF} <u>W</u>	Section No. <u>27</u>	Fraction <u>NE NE NE</u> of <u>4</u>	4. WELL DEPTH (completed) <u>904</u> ft.	Date sealed <u>4/26/91</u>
Numerical Street Address and City of Well Location or Distance from Road Intersection <u>300 Hardman Avenue</u>					5. DRILLING METHOD (if known) ☒ Cable tool ☐ Reverse ☐ Driven ☐ Dug ☐ Hollow Rod ☐ Air ☐ Bored ☐ _____ ☐ Rotary ☐ Jetted ☐ Power Auger	
Show exact location of well (in section grid with "X") 					6. OBSTRUCTIONS Well obstructed ☐ Yes ☒ No Obstructions removed ☐ Yes ☐ No If obstructions cannot be removed, contact MDH before sealing.	
2. PROPERTY OWNER'S NAME <u>South St. Paul HRA</u> Mailing Address if different than property address indicated above <u>125 3rd Avenue N., Rm. 111</u> <u>S. St. Paul, MN 55075-2097</u>					7. USE ☐ Domestic ☐ Monitoring ☐ Heat Loop ☐ Irrigation ☐ Public ☒ Industry ☐ Test Well ☐ Municipal ☐ Commercial ☐ Air Conditioning ☐ _____	
3. FORMATION LOG COLOR HARDNESS OF FORMATION FROM TO If not known, indicate formation log from new well or nearby well.					8. CASING(S) ☒ Black ☐ Threaded ☐ _____ ☐ Galv. ☐ Welded ☐ Plastic ☐ Stainless Steel <u>30</u> in. to <u>100</u> ft. <u>24</u> in. to <u>226</u> ft.	
16. REMARKS. ELEVATION, SOURCE OF DATA - CASINGS REMOVED, CASINGS PERFORATED, ETC. 					9. SCREEN ☐ Screened well from _____ ft. to _____ ft. (If known) ☒ Open Hole from <u>422</u> ft. to <u>904</u> ft.	
					10. STATIC WATER LEVEL <u>4</u> ft. ☒ below ☐ above land surface Date Measured <u>4/26/91</u>	
					11. WELLHEAD COMPLETION ☐ Pitless Adapter ☐ Found Buried ☒ Basement offset ☐ _____ ☐ Well Pit	
					12. GROUTING INFORMATION ☒ Neat Cement ☐ Bentonite ☒ Pea Rock Grout material <u>neat</u> from <u>0</u> to <u>855</u> ft. cu. yds <u>76</u> <u>Pea Rock</u> <u>695</u> <u>855</u> <u>14</u>	
13. NEAREST SOURCES OF CONTAMINATION _____ feet _____ direction _____ type Well disinfected before sealing? ☒ Yes					14. PUMP ☐ Removed ☒ Not Present Type: ☐ Submersible ☐ L.S. Turbine ☐ Reciprocating ☐ Jet ☐ Centrifugal ☐ _____	
15. EXISTING WELLS (Please sketch locations of abandoned and active wells in remarks section or on back.) Other unused well(s) on property? ☒ Yes ☐ No Abandoned: ☒ Permanent ☐ Temporary ☐ Not sealed					17. WATER WELL CONTRACTORS CERTIFICATION This well was sealed under my jurisdiction and this report is true to the best of my knowledge and belief. <u>Bergerson-Caswell, Inc.</u> <u>27058</u> Licensee Business Name License No. Address <u>5115 Industrial Street</u> Signed <u>Dave Eisinder</u> Date <u>5/26/91</u> Name of Driller Date <u>5/26/91</u>	

OFFICIAL ABANDONED WELL RECORD (May be used for Property Transfer)

IMPORTANT: FILE WITH DEED

STATE OF MINNESOTA DEPARTMENT OF HEALTH

ABANDONED WELL RECORD

1. LOCATION OF WELL

County Name DakotaMINNESOTA UNIQUE WELL NO.
(leave blank if not known)

Township Name South St. Paul	Township Number 28 ^N _{OF} S	Range Number 22 ^E _{OF} W	Section No. 27	Fraction NE NE NE
--	---	--	-------------------	----------------------

4. WELL DEPTH (completed)

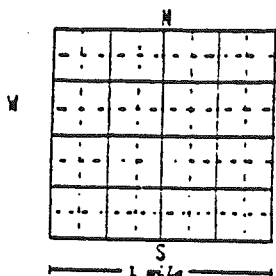
444 ft.

Date sealed

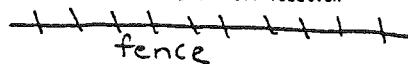
4/26/91

Numerical Street Address and City of Well Location or Distance from Road Intersection

300 Hardman Avenue

Show exact location of well
(in section grid with "X")

Sketch map of well location



East Chute Rd.

5. DRILLING METHOD (if known)

- ☒ Cable tool ☐ Reverse ☐ Driven ☐ Dug
☐ Hollow Rod ☐ Air ☐ Bored ☐ _____
☐ Rotary ☐ Jetted ☐ Power Auger

6. OBSTRUCTIONS

- Well obstructed ☐ Yes ☒ No
 Obstructions removed ☐ Yes ☐ No If obstructions cannot be removed, contact MDH before sealing.

7. USE

- ☐ Domestic ☐ Monitoring ☐ Heat Loop
☐ Irrigation ☐ Public ☒ Industry
☐ Test Well ☐ Municipal ☐ Commercial
☐ Air Conditioning ☐ _____

2. PROPERTY OWNER'S NAME
South St. Paul
HRA
 Mailing Address if different than property address indicated above
 125 3rd Avenue N., Rm. 111
 S. St. Paul, MN 55075-2097

3. FORMATION LOG

If not known, indicate formation log from new well or nearby well.

HARDNESS OF FORMATION

COLOR

FROM

TO

8. CASING(S)

- ☒ Black ☐ Threaded ☐ _____
☐ Galv. ☐ Welded
☐ Plastic ☐ Stainless Steel

20

104

12

255

in. to ft.
in. to ft.

9. SCREEN

- ☐ Screened well from _____ ft. to _____ ft. (if known)
☒ Open Hole from 225 ft. to 444 ft.

10. STATIC WATER LEVEL

- 5 ft. ☒ below ☐ above 4/26/91
 land surface Date Measured

11. WELLHEAD COMPLETION

- ☐ Pitless Adapter ☐ Found Buried
☒ Basement offset ☐ _____
☐ Well Pit

16. REMARKS, ELEVATION, SOURCE OF DATA - CASINGS REMOVED, CASINGS PERFORATED, ETC.

12. GROUTING INFORMATION

- ☒ Heat Cement ☐ Bentonite ☒ Pea Rock
 Grout material neat from 0 to 444 ft. cu. yds. 41
 Pea Rock 296 444 7

13. NEAREST SOURCES OF CONTAMINATION

- _____ feet _____ direction _____ type
 Well disinfected before sealing? ☒ Yes

14. PUMP

- ☐ Removed ☒ Not Present
 Type: ☐ Submersible ☐ L.S. Turbine ☐ Reciprocating
☐ Jet ☐ Centrifugal ☐ _____

15. EXISTING WELLS (Please sketch locations of abandoned and active wells in remarks section or on back.)

- Other unused well(s) on property? ☒ Yes ☐ No
 Abandoned: ☒ Permanent ☐ Temporary ☐ Not sealed

17. WATER WELL CONTRACTORS CERTIFICATION

This well was sealed under my jurisdiction and this report is true to the best of my knowledge and belief.

Bergerson-Caswell, Inc. 27058

Licensee Business Name

License No.

Address 5115 Industrial Street

 Signed Gabein C. Bergerson Date 5/26/91
Dave Eisinger Date 5/26/91

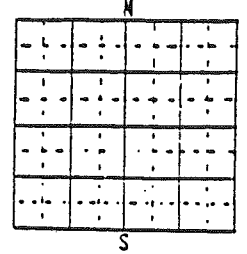
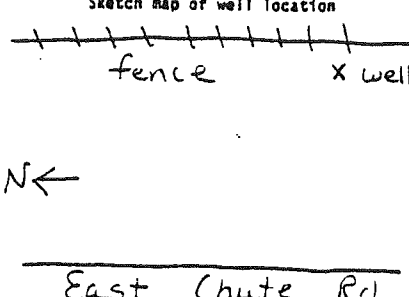
Name of Driller

OFFICIAL ABANDONED WELL RECORD (May be used for Property Transfer)

IMPORTANT: FILE WITH DEED

STATE OF MINNESOTA DEPARTMENT OF HEALTH

ABANDONED WELL RECORD

1. LOCATION OF WELL					MINNESOTA UNIQUE WELL NO. (Leave blank if not known)	
County Name <u>Dakota</u>						
Township Name <u>South St. Paul</u>	Township Number <u>28</u> ^N or ^S	Range Number <u>22</u> ^E or ^W	Section No. <u>27</u>	Fraction <u>NE NE NE</u>	4. WELL DEPTH (completed) <u>904</u> ft.	Date sealed <u>5/7/91</u>
Numerical Street Address and City of Well Location or Distance from Road Intersection <u>300 Hardman Avenue</u>					5. DRILLING METHOD (if known) ☒ Cable tool ☐ Reverse ☐ Driven ☐ Dug ☐ Hollow Rod ☐ Air ☐ Bored ☐ _____ ☐ Rotary ☐ Jetted ☐ Power Auger	
Show exact location of well (in section grid with "X")  Sketch map of well location 					6. OBSTRUCTIONS Well obstructed ☐ Yes ☒ No Obstructions removed ☐ Yes ☐ No If obstructions cannot be removed, contact MDH before sealing.	
2. PROPERTY OWNER'S NAME <u>South St. Paul HRA</u>					7. USE ☐ Domestic ☐ Monitoring ☐ Heat Loop ☐ Irrigation ☐ Public ☒ Industry ☐ Test Well ☐ Municipal ☐ Commercial ☐ Air Conditioning ☐ _____	
Mailing Address if different than property address indicated above <u>125 3rd Avenue N., Rm. 111</u> <u>S. St. Paul, MN 55075-2097</u>					8. CASING(S) ☒ Black ☐ Threaded ☐ _____ ☐ Galv. ☐ Welded ☐ Plastic ☐ Stainless Steel <u>30</u> in. to <u>128</u> ft. <u>24</u> in. to <u>244</u> ft. <u>20</u> in. to <u>444</u> ft.	
3. FORMATION LOG COLOR HARDNESS OF FORMATION FROM TO If not known, indicate formation log from new well or nearby well.					9. SCREEN ☐ Screened well from _____ ft. to _____ ft. (If known) ☒ Open Hole from <u>444</u> ft. to <u>750</u> ft.	
10. STATIC WATER LEVEL <u>38</u> ft. ☒ below ☐ above <u>5/7/91</u> Land surface Date Measured					11. WELLHEAD COMPLETION ☐ Pitless Adapter ☐ Found Buried ☐ Basement offset ☒ open field ☐ Well Pit	
16. REMARKS, ELEVATION, SOURCE OF DATA - CASINGS REMOVED, CASINGS PERFORATED, ETC.						
12. GROUTING INFORMATION ☒ Wet Cement ☐ Bentonite ☒ Sand & Pea Rock Grout material <u>neat</u> from <u>0</u> to <u>737</u> ft. cu. yds <u>73</u> <u>pea rock</u> <u>690</u> <u>737</u> <u>45</u>						
13. NEAREST SOURCES OF CONTAMINATION _____ feet _____ direction _____ type Well disinfected before sealing? ☒ Yes						
14. PUMP ☐ Removed ☒ Not Present Type: ☐ Submersible ☐ L.S. Turbine ☐ Reciprocating ☐ Jet ☐ Centrifugal ☐ _____						
15. EXISTING WELLS (Please sketch locations of abandoned and active wells in remarks section or on back.) Other unused well(s) on property? ☒ Yes ☐ No Abandoned: ☒ Permanent ☐ Temporary ☐ Not sealed						
17. WATER WELL CONTRACTORS CERTIFICATION This well was sealed under my jurisdiction and this report is true to the best of my knowledge and belief. Bergerson-Caswell, Inc. 27058 Licensee Business Name License No. Address <u>5115 Industrial Street</u> Signed <u>Dave Eisinger</u> Date <u>6/7/91</u> Date <u>6/7/91</u> Name of Driller						

OFFICIAL ABANDONED WELL RECORD (May be used for Property Transfer)

IMPORTANT: FILE WITH DEED

Ordinance No. 114:
WELL CONSTRUCTION AND ABANDONMENT

Permit No.

WELL PERMIT

DAKOTA COUNTY PUBLIC HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH SERVICES SECTION
WATER QUALITY MANAGEMENT UNIT

91-4210 (MW-1D)
91-4211 (MW-3D)
91-4212 (MW-4D)
91-4213 (MW-1B)
91-4214 (MW-2B)
91-4215 (MW-3B)

14955 Galaxie Ave., Apple Valley, MN 55124
Telephone: (612)891-7556

WHEREAS, the

PERMITTEE/DBA: South St. Paul HRA

ADDRESS: 125 3rd Avenue North
South St. Paul, MN 55075

NON-TRANSFERABLE

REVIEWED BY BW

has paid the sum of three hundred (\$300) dollars to the County of Dakota as required by Ordinance 114 and has complied with all the requirements of said Ordinance necessary for obtaining registered-use permit for the well(s) described herein:

Six monitoring wells are being used to monitor potential petroleum release from former gasoline and fuel oil storage tanks and a gas station.

The wells are located in the municipality of South St. Paul are as follows:

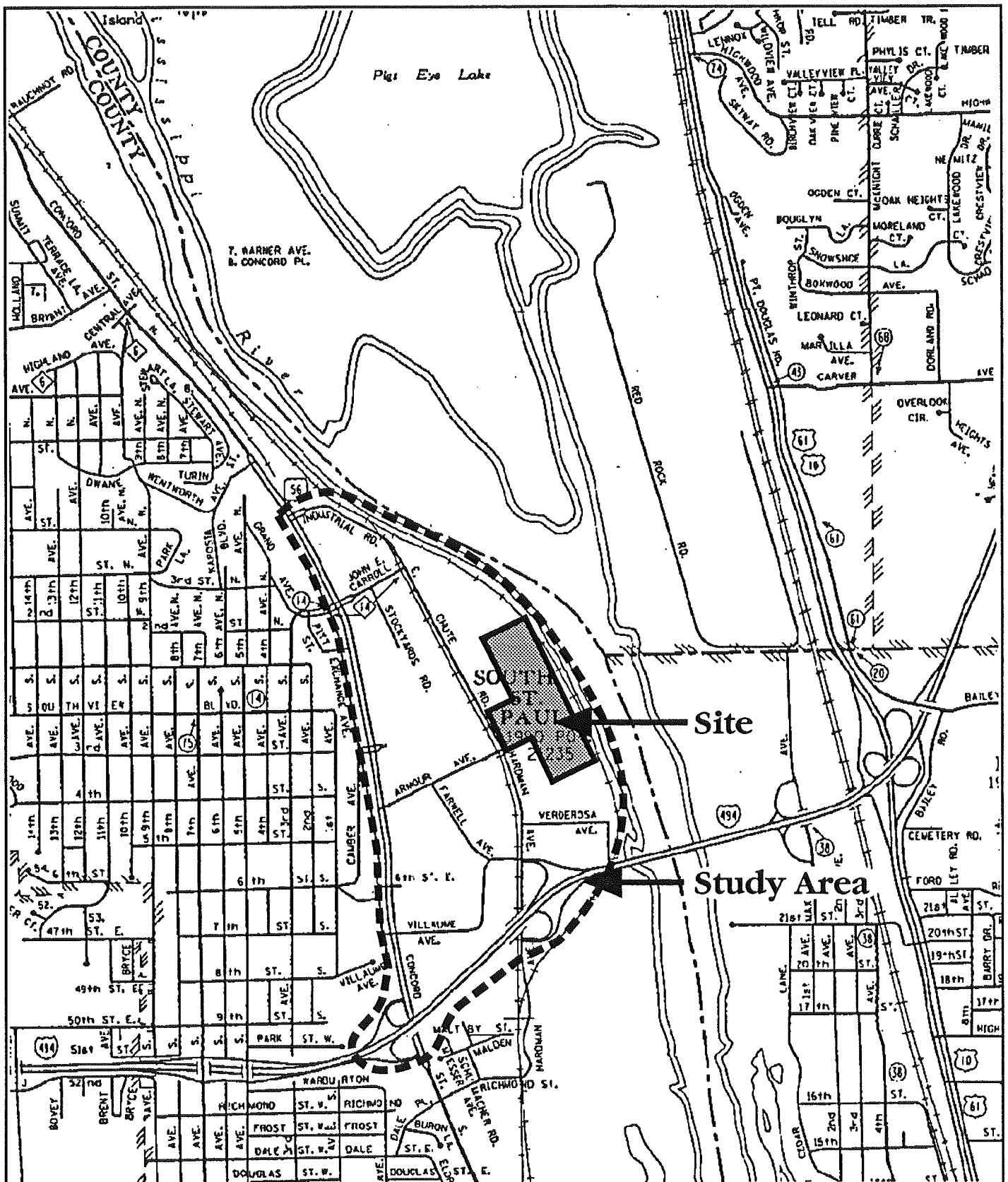
<u>Well Location</u>	<u>Property Owner</u> <u>and Address(if different)</u>	<u>Well Owner and address</u> <u>if different</u>
South St. Paul HRA 333 Hardman Ave. South St. Paul, MN	South St. Paul HRA 125 3rd Avenue North South St. Paul, MN	

NOW, THEREFORE, South St. Paul HRA is hereby permitted and authorized to keep and use the well(s) located above for the purpose described for the period through October 31, 1992. This permit must be renewed at the end of this time period. Upon failure to renew this permit the well(s) will be considered to be abandoned, and will be required to be sealed within 90 days. This permit is subject to all provisions of said Ordinance.

Given under my hand this 1st day of July, 1991.

Ronald C. Spang
ENVIRONMENTAL HEALTH SUPERVISOR

ATTEST Jeffrey R. Hartman
ENVIRONMENTAL HEALTH DIRECTOR



SOUTH ST. PAUL HRA INDUSTRIAL PLAN

Traffic Impact Study

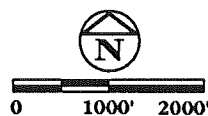


Figure 1

Site Location Map

- Hardman Avenue

Hardman Avenue is a relatively short two-lane industrial collector roadway serving the stockyards and industrial uses between TH 56 and the Mississippi River in the vicinity of the I-494 interchange. Hardman Avenue is designated as a Great River Road. The north end of Hardman Avenue terminates at an intersection with TH 56 approximately 1.4 miles north of I-494 and the southern end also terminates at an intersection with TH 56 approximately .25 miles south of I-494.

Hardman Avenue is currently discontinuous for a short distance between John E. Carroll Boulevard and Armour Avenue. A roadway known as East Chute Road makes this connection however, on private property. Planned roadway improvements, discussed on page 10 of this report, have been designed which will make Hardman Avenue a continuous roadway.

- I-494

I-494 passes south of the project site and forms part of the circumferential interstate bypass route around the Twin Cities metropolitan area. There are folded diamond interchanges on I-494 at both Hardman Avenue and TH 56. I-494 transitions from a six-lane section west of the Mississippi River to a four-lane section on the bridge crossing the river.

Intersections

Figures A-1 through A-6 of the Appendix show the basic geometry of the eight key study area intersections including lane arrangements and traffic control. The following discussion provides a brief description of the geometrics at each intersection.

- TH 56 at Hardman Avenue

This is a four leg intersection with STOP control on the side Street approaches to TH 56. The west leg of the intersection is a driveway access to a bowling alley and liquor store. Both left and right auxiliary turn lanes are provided in both directions on TH 56.

- TH 56 at John E. Carroll Boulevard

This is a four leg intersection with signalized traffic control. Three lanes are provided for the westbound side street approach consisting of a left, through and right turn lane. Four lanes are provided on the eastbound intersection approach consisting of a left, two through and a right turn lane. Auxiliary left and right turn lanes are provided in both directions on TH 56.

- TH 56 at Armour Avenue

This is a T-type intersection with signalized traffic control. An auxiliary left turn lane is provided on TH 56 southbound and an auxiliary right turn lane is provided on TH 56 northbound. The Armour Avenue approach consists of a left turn lane and a right turn lane under YIELD control.

- TH 56 at Villaume Avenue

This is a four leg intersection under signalized traffic control. Two-lane approaches are provided on the side streets. Auxiliary left and right turn lanes are provided in both directions on TH 56.

- TH 56 at I-494 Westbound Ramps

This is a T-type intersection under signalized traffic control. The I-494 ramp approach consists of two lanes. TH 56 southbound consists of two through lanes and a right turn lane while TH 56 northbound consists of two through lanes and a left turn lane.

- TH 56 at I-494 Eastbound Ramps

This is a T-type intersection under signalized traffic control. The I-494 ramp approach consists of a left turn lane and a right turn lane under YIELD control. TH 56 southbound consists of a through lane and a right turn lane while TH 56 northbound consists of two through lanes and a left turn lane.

- Hardman Avenue at I-494 Westbound Ramps and Villaume Avenue

This is a four leg intersection with STOP control on the side street approaches to Hardman Avenue. Both the I-494 ramp and Villaume Avenue approaches consist of three approach lanes including a left, through and right turn lane. The northbound Hardman Avenue approach consists of a three lane approach including a left, through and right turn lane and the southbound approach consists of two lanes including one left turn and one through lane.

- Hardman Avenue at I-494 Eastbound Ramps

This is a T-type intersection with STOP control on the I-494 off-ramp approach. The off-ramp approach consists of two-lanes. The Hardman Avenue northbound approach consists of two lanes including one through and one right turn lane. The Hardman Avenue southbound approach consists of one through and one left turn lane.

TRAFFIC VOLUMES

Traffic data was collected on study area roadways during the week of December 9, 1991.

Automatic Traffic Recorder (ATR) counts were taken at the following locations:

- TH 56 south of Armour Avenue: 72 hours
- Hardman Avenue south of Armour Avenue: 48 hours

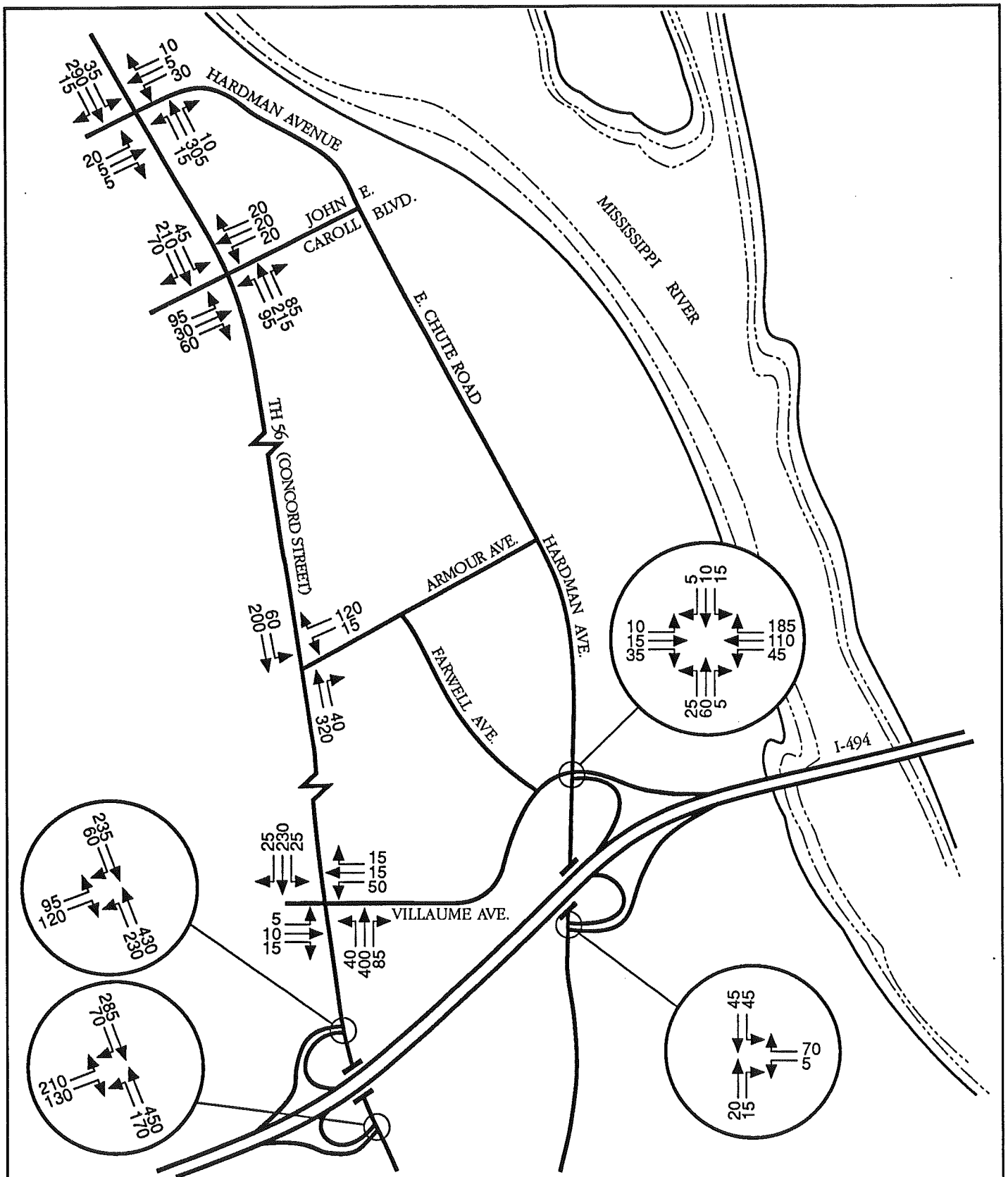
Manual turning movement counts were conducted during the weekday morning peak period (7:00 to 9:00 AM) and the weekday evening peak period (4:00 to 6:00 PM) at the following key study area locations:

- TH 56 at Hardman Avenue
- TH 56 at John E. Carroll Boulevard
- TH 56 at Armour Avenue
- TH 56 at Villaume Avenue
- TH 56 at I-494 Westbound Ramp Terminals
- TH 56 at I-494 Eastbound Ramp Terminals
- Hardman Avenue at I-494 Westbound Ramp Terminals
- Hardman Avenue at I-494 Eastbound Ramp Terminals

Examination of the above traffic volume data indicate that the study area roadway network AM peak hour occurs from 7:15-8:15 AM and the PM peak hour occurs from 4:15-5:15 PM.

Figures 2 and 3 illustrate the 1991 Existing Average Weekday AM and PM peak hour traffic volumes; respectively.

Table 1 presents a summary of the daily and peak hour link traffic volumes at three key locations in the study area.



SOUTH ST. PAUL HRA INDUSTRIAL PLAN

Traffic Impact Study



BRW

Figure 2

**1991 Existing
Weekday AM
Peak Hour
Traffic Volumes**

APPENDIX B

AIR QUALITY IMPACT ANALYSIS

Introduction

Traffic generated by the proposed project will add to existing levels of carbon monoxide (CO) adjacent to the streets and intersections serving the project site. To address this potential impact, an air quality analysis has been conducted to estimate future CO concentrations.

Future CO concentrations are estimated as the sum of background CO concentrations determined through monitoring conducted near the project site and local CO estimated by modeling future traffic flow. The predicted CO concentrations are compared to the state ambient air quality standards for CO, which are 30 PPM one-hour average and 9 PPM eight-hour average. These standards are intended to protect the most sensitive portions of the population and are not to be exceeded more than once per year.

Background CO Concentrations

Existing background CO concentrations have been determined based on a two-week monitoring program conducted near the project site. CO monitoring was conducted by Interpoll, Inc. between October 31, 1989, and November 20, 1989. The monitoring site was located at Inver Hills Community College approximately 4.2 miles southwest of the proposed development site. The monitoring data was discussed with staff of the Minnesota Pollution Control Agency (MPCA) and determined to be appropriate for use in this study.

The monitoring results are shown in Tables B1 and B2. Table B1 shows the one-hour average CO concentrations and Table B2 shows the eight-hour average CO concentrations. The maximum monitored CO concentrations were 1.3 PPM one-hour average and 1.0 PPM eight-hour average.

Worst-case background CO concentrations for the year 2005, the year after expected project completion, were estimated based on the monitoring data. Adjustments have been made to account for temperature, seasonal meteorology, changes in vehicle miles of travel, and changes in vehicular CO emission rates. These adjustments are shown in Table B3. The seasonal meteorological adjustment is taken from the Holzworth procedures documented in Guidelines for Air Quality Maintenance Planning and Analysis, Volume 9 (Revised): Evaluating Indirect Sources (EPA-405/4-78-001). This adjustment accounts for lower average atmospheric mixing heights and wind speeds typical during winter months. Temperature adjustments and changes in vehicular CO emission rates are taken from the U.S. EPA MOBILE4.1 mobile source emissions model.

As shown in Table B3, the estimated worst-case background CO concentrations in 2005 are 1.1 PPM one-hour average and 0.9 PPM eight-hour average.

Table B-1

MONITOR DATA REPORT

For Month of: October/November Report of One-Hour Averages

Site: Inver Hills Community
Inver Grove Heights, MinnesotaLocation: Business Building
Height: 12 feetPollutant: Carbon Monoxide
Units: Parts per Million
Minnesota State Standard: 30 parts per million
Collection Method: Instrumental
Analysis Method: Nondispersive Infrared

Day of Week	Day of Year	Average For One-Hour Period (Central Standard Time)																								Daily Max. Ave.		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
31	T	304													0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.6	0.7	0.5	0.1	0.7	0.2
1	M	305	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0
2	T	306	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.3	0.4	0.9	0.9	0.9	1.2	1.2	0.2
3	F	307	1.3	1.2	1.0	0.9	0.8	0.5	0.3	0.2	0.1	0.1	0.1	0.1			0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	1.3	0.4
4	S	308	0.0	0.1	0.1	0.1	0.1	0.1	0.2	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	0.1	0.2	0.1
5	S	309	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
6	M	310	0.2	0.2	0.1	0.2	0.1	0.2	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3
7	T	311	0.3	0.3	0.3	0.2	0.3	0.2	0.3	0.4	0.4	0.3	0.0	0.0													0.4	0.3
8	M	312																										
9	T	313																										
10	F	314																										
11	S	315																										
12	S	316	0.3	0.3	0.4	0.4	0.4	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.2	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2
13	M	317						0.4	1.1	0.9			0.3	0.4	0.0	0.1	0.1	0.4	0.5	0.3	0.5	0.6	0.7	0.5	0.3	1.1	0.4	0.3
14	T	318	0.2	0.3	0.2	0.2	0.3	0.4	0.8	0.8	0.7	0.7	0.5	0.6	0.8	0.7	0.8	1.0	0.9	0.5	0.6	0.7	0.8	0.6	0.1	1.0	0.6	0.6
15	M	319	0.0	0.1	0.2	0.3	0.2	0.1	0.4	0.6	0.6	0.6	0.5	0.4	0.6	0.6	0.7	0.9	0.4	0.1	0.1	0.4	0.2	0.3	0.8	0.9	0.4	0.4
16	T	320	0.1	0.0	0.2	0.1	0.1	0.2	0.3	0.6	0.2	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.6	0.2
17	F	321	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.2	0.1	0.2	0.2	0.1
18	S	322	0.3	0.2	0.2	0.1	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.0	0.1	0.2	0.1	0.3	0.0	0.2	0.3	0.3	0.3	0.3	0.2
19	S	323	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.1	0.2	0.2	0.1	0.2	0.2	0.3	0.4	0.3	0.1	0.1	0.1	0.1	0.2	0.4	0.4	0.2	0.2
20	M	324	0.4	0.3	0.3	0.4	0.4	0.3	0.5	0.6	0.6	0.7	0.7														0.8	0.5

Average
Maximum0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.4 0.3 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.3 0.2 0.2 0.2 0.3 0.3 0.3 0.3 0.6 0.2
1.3 1.2 1.0 0.9 0.8 0.5 0.5 1.1 0.9 0.7 0.7 0.7 0.7 0.6 0.6 0.8 0.7 0.8 1.0 0.9 0.5 0.6 0.7 0.9 0.9 1.2 1.3 0.6

Table B-2

MONITOR DATA REPORT

For Month of: October/November

Report of Eight-Hour Averages

Site: Inver Hills Community
Inver Grove Heights, Minnesota

Location: Business Building
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 Max. Ave.
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1	T	304	0.3	0.3	0.3	0.2	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	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.2
2	W	305	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	0.1	0.1	0.2	0.3	0.4	0.5	0.5	0.1
3	T	306	0.7	0.8	0.9	1.0	1.0	1.0	0.9	0.8	0.7	0.5	0.4	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.0	0.4
4	F	307	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	1.0	0.4
5	S	308	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1
6	S	309	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1
7	M	310	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2
8	T	311	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2
9	W	312	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2
10	T	313	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2
11	F	314	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2
12	S	315	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.1
13	S	316	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
14	M	317	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.7	0.8	0.7	0.7	0.8	0.7	0.7	0.8	0.6
15	T	318	0.5	0.4	0.4	0.4	0.4	0.3	0.2	0.1	0.2	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.5	0.5	0.5	0.4	0.4	0.6	0.4
16	W	319	0.5	0.4	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4
17	T	320	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.3	0.2
18	F	321	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	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
19	S	322	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
20	S	323	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
21	M	324	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.4
22	T	325	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2
23	W	326	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2
24	T	327	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2
25	F	328	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2
26	S	329	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2
27	S	330	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2
28	M	331	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2
29	T	332	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2
30	W	333	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2
31	T	334	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2

Average
Maximum

0.3 0.3 0.3 0.3 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.3 0.3 0.3 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2
0.7 0.8 0.9 1.0 1.0 1.0 1.0 0.9 0.8 0.7 0.5 0.5 0.6 0.6 0.6 0.7 0.7 0.7 0.7 0.8 0.7 0.7 0.8 0.8 0.7 0.7 0.7 0.7 0.6

TABLE B3
BACKGROUND CO CONCENTRATIONS

	Correction Factor	
	1-Hour	8-Hour
Maximum Monitored Concentration (PPM) ^{1/}	1.3	1.0
Holzworth Correction ^{2/} (to worst-case winter conditions)	1.2	1.2
Temperature Adjustment ^{3/} (to 20° Fahrenheit)	2.0	2.0
1989 Worst-Case Background CO (PPM)	3.1	2.4
2005 VMT Adjustment (1.00% per year)	1.173	1.173
2005 Emission Adjustment ^{3/}	.314	.314
2005 Worst-Case Background (PPM)	1.1	0.9

^{1/} Monitoring conducted at Inver Hills Community College between October 31, 1989, and November 20, 1989.

^{2/} Holzworth correction estimated based on procedures given in Guidelines for Air Quality Maintenance Planning and Analysis, Volume 9 (Revised): Evaluating Indirect Sources, (EPA-405/4-78-001).

^{3/} Temperature and emission adjustment factors taken from U.S. EPA MOBILE4.1 mobile source emissions model.

Analysis Areas

The results of the traffic impact analysis were used to determine the critical locations for air quality analysis. CO emissions are proportional to both the volume of traffic in an area and the level of congestion or delay. CO concentrations are highest in the vicinity of intersections where vehicles must decelerate, stop, and accelerate. Idling and accelerating vehicles emit CO at a higher rate than vehicles moving at a constant speed.

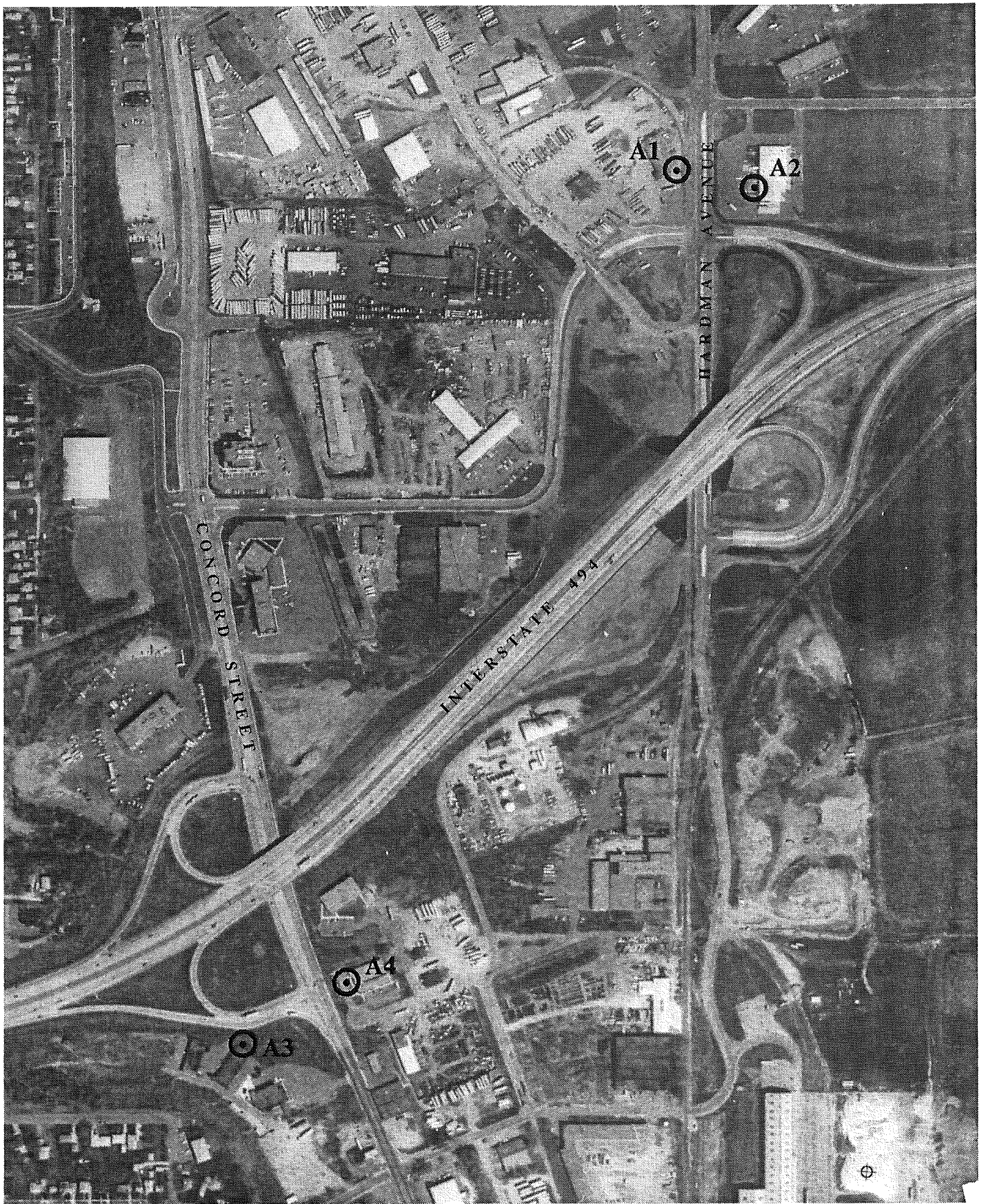
The traffic analysis analyzed traffic operations at both signalized and unsignalized intersections serving the project site. The signalized intersection with the highest traffic volume and longest delay time is the intersection of TH 56 (Concord Street) and the I-494 eastbound ramps. The unsignalized intersection with the highest traffic volume and longest delay is the intersection of Hardman Avenue at the I-494 westbound ramps and Villaume Avenue. CO concentrations in the vicinity of these intersections can be expected to be higher than at any other intersections serving the site since the volume of traffic and delay times are the highest.

Receptor sites selected for analysis are shown on Figure B1. The receptor sites represent the locations nearest the critical intersections where the general public might reasonably be expected to be for time periods consistent with the state air quality standards.

Analysis Results

The results of the air quality analysis are shown in Table B4. The maximum predicted CO concentrations are 2.2 PPM one-hour average and 1.7 PPM eight-hour average. Both of these concentrations are well below the state ambient air quality standards. Given the conservative nature of the modeling procedures and assumptions, it can be concluded that the project will not cause violations of air quality standards.

It should be noted that the State of Minnesota established a vehicle inspection and maintenance program in the Twin Cities metropolitan area in 1991. This program requires periodic inspection of vehicle emissions and maintenance of the vehicle if emissions are outside of acceptable levels. This program is expected to reduce average CO emission rates in the metropolitan area. The effects of this program have not been considered in this analysis.



Armour Site Industrial Redevelopment EAW
Housing and Redevelopment Authority of South St. Paul

Air Quality Receptor Sites

Figure B-1

TABLE B4
MAXIMUM PREDICTED CO CONCENTRATIONS (PPM)

Receptor	1-Hour Average	8-Hour Average
A1	1.5	1.2
A2	1.4	1.1
A3	2.2	1.7
A4	1.9	1.5
State Standard	30.0	9.0