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Proposed Meeting Schedule
Light Rail Transit Planning for
Midway Corridor

Ramsey County

Midway Corridor Task Force

7:00 PM meeting

2/3/88	Land use plans, system standards generalized costs, alignment information
2/10/88	Population, employment, travel time, generalized costs by alignment
2/25/88	Review technical report which includes patronage data and information on feeder bus system, in addition to data previously developed
3/3/88	Recommendation

Corridor Task Force meetings are
held in the Community Conference
Room at Midway Hospital,
1700 University Avenue

KD:m

Ramsey County Regional
Railroad Authority

Citizens Advisory Committee

7:00 PM meeting

2/9/88	Land use plans, system standards generalized costs, alignment information
2/16/88	Population, employment, travel time, generalized costs by alignment
3/1/88	Review technical report which includes patronage data and information on feeder bus system, in addition to data previously developed
3/8/88	Recommendation

Call Kathy DeSpiegelaere
at 484-9104 for location
of Citizens Advisory
Committee meetings

PROPOSED MEETING SCHEDULE FOR
LIGHT RAIL TRANSIT PLANNING ANALYSIS FOR MIDWAY CORRIDOR

Corridor Task Force (7:00 PM Meetings)		Citizen Advisory Committee (7:00 PM Meetings)	
<u>Date</u>	<u>Potential Agenda Items</u>	<u>Date</u>	<u>Potential Agenda Items</u>
1/21/88	-Introduction to LRT -Universe of Alternatives -Screening Criteria -Transit Philosophy	1/19/88	-Universe of Alternatives -Screening Criteria -Transit Philosophy -Financial Alternatives
1/28/88	-Initial Screening (Fatal Flaw) -Development Potential -System Standards	2/2/88	-Initial Screening (Fatal Flaw) -Development Potential -System Standards
2/3/88	-2nd Screening (If Needed)	2/9/88	-2nd Screening (If Needed)
2/10/88	-Patronage Forecasts -Discussion/Analysis Review	2/16/88	-Patronage Forecasts -Discussion/Analysis
2/25/88	-Review Technical Report & Decision	2/29/88	-Review Technical Report & Decision

Kathy D

The Istanbul Light Rail System



A New Era in City Transport

ASEA TRACTION

SUMMARY

Introduction

The city of Istanbul is to have a light rail system.

In March 1986 a contract was signed between the Municipality of Istanbul and a consortium formed between ASEA Traction of Sweden and the Turkish contractor Yapi Merkezi, for the construction of a complete 23 km system.

Scope

The system will be built in the European side of Istanbul, and will extend from Yenikapi to Ataköy, forming a ring from the Central Business District to the new residential areas close to the airport.



Construction will be carried out in two stages. The first phase from Aksaray to Ferhatpasa will be opened in 1988, while the entire line from Yenikapi to Ataköy will be completed by late 1990. There will be 21 stations, plus a depot at Ferhatpasa.

The whole of the line will be on an exclusive right-of-way, including about 3 km in tunnel and 3 km of elevated construction.

The contract includes all civil works, vehicles, power supplies, signalling and depot facilities.

The company, which was founded in 1963 has three principal areas of business:

- Architects and designers
- Civil engineering contractors
- Manufacturers of pre-cast concrete products

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Construction will be carried out in two stages. The first phase from Aksaray to Yenikapi will be opened in 1992, while the entire line from Yenikapi to Ataköy will be completed by late 1993. There will be 21 stations, plus a depot at Yenikapi.

The whole of the line will be on an exclusive right-of-way, including about 1 km in tunnel and 2 km of elevated construction.

The contract includes all civil works, vehicles, power supply, signalling and depot facilities.

Capacity

The line will be designed to carry 17000 passengers per hour in each direction. The vehicle fleet will eventually consist of 105 LRV's based on ASEA's highly successful M21 design presently in series production for the Gothenburg Transit Authority, Sweden.

Local partner

An important aspect of the project is that ASEA's partner in the consortium will be the highly regarded Istanbul company Yapi Merkezi, which will be responsible for all civil engineering work. This includes the construction of the line, tunnels, bridges and stations in an old and beautiful city, and it is essential that these operations are carried out with skill and sensitivity.

VEHICLE

General

Future extensions

In the long term, a number of extensions to the system are proposed, which would expand it to a total length of 109 km. These comprise a line running east from Atisalani to Abide, a loop line from Atisalani via Halbali to rejoin the first line and near Ataköy, a branch to Havaalani, and an extension from Yenikapi to the main terminus of Turkish Railways at Sirkeci.

CIVIL WORKS

Track

The system will eventually comprise 23 km of double track with 21 stations and a depot.

The first 2½ km, from Aksaray, is along the ceremonial avenue Vatan Caddesi and will therefore be in tunnel. The route is then mainly alongside existing or new highways. There will be about 3 km of bridges and viaducts at crossings of valleys and main roads.

Stations

The stations will generally be to a common design which has been carefully styled so as to blend into the existing city environment. All platforms will be at the same level as the car floors giving easy and safe access for all passengers.

Civil contractor

The responsibility for all the civil works is in the hands of Yapi Merkezi, of Istanbul, one of Turkey's best known civil engineering enterprises.

The company, which was founded in 1965 has three principal areas of business:

- Architects and designers
- Civil engineering contractors
- Manufacturers of pre-cast concrete products

Yapi Merkezi has completed many important projects in Turkey. Typical examples are the design of the Ankara Metro, construction of roads and bridges and the restoration of several important historical buildings. Among the most celebrated of these are the Galata Tower and Atatürk's Thessaloniki Mansion.

Yapi Merkezi has grown rapidly since its foundation due to its reputation for competent management and successful contract performance.

VEHICLE

General

The 105 LRV's will be generally formed to 3-car sets, where the outer cars have cabs at one end and the centre car has no cab, but is otherwise of the same basic design.

The complete vehicles will be assembled at ASEA Traction's plant in Helsingborg. The bodies will be built under sub-contract by Simmering-Graz-Pauker AG, of Vienna, Austria.

Two of the three bogies are powered, while there is one trailing bogie in the centre. All six axles have pneumatic brakes. The pneumatic equipment of the vehicle supplies not only the brakes but also the door gear and the operating mechanism of the automatic coupler.

The electric traction and auxiliary supply equipment consists in the main of static components. This means that contactors, which require maintenance and care, have been replaced by gate-turn-off thyristors, GTO and other static elements.

The introduction of a microprocessor control has reduced the volume of the electronic equipment compared to that of chopper equipment based on conventional electronics.

The LRV body is in two parts coupled together at the articulation. The articulation accommodates bumps and track irregularities. There are four sliding plug doors on each side of the vehicle and the driver's cab is located at one end. Using a simple shunting controller at the rear, it is possible to run the vehicle in reverse at reduced speed.

The body is in the form of a self-supporting steel structure, which absorbs the forces to which the vehicle is subjected when carrying passengers, together with motoring, braking and collision forces.



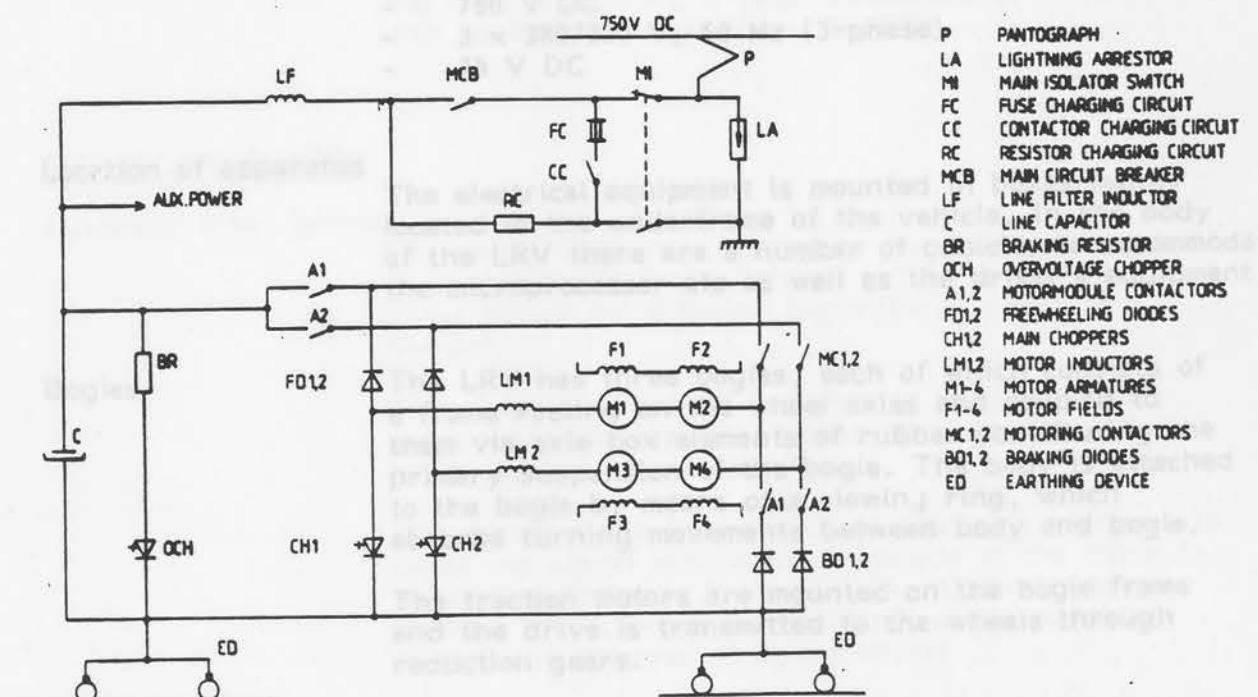
The roof is of stainless steel sheet. Rainwater drains away through special pipes between the roof and the underframe.

The windows are of hardened glass. Some of them are hinged and may be opened into the passenger compartment. The front windscreen is divided into three sections and is electrically heated.

The seats have frames of reinforced plastic construction with padded seat and back cushions.

The driver's cab is an enclosed compartment with its own heating, ventilation and air conditioning equipment. The driver's desk has snap-on couplings for both electrical and mechanical connections. Pushbuttons, switches, a manual controller and an electronic display to indicate faults are arranged on the panel here.

Electric traction equipment



- P PANTOGRAPH
- LA LIGHTNING ARRESTOR
- MI MAIN ISOLATOR SWITCH
- FC FUSE CHARGING CIRCUIT
- CC CONTACTOR CHARGING CIRCUIT
- RC RESISTOR CHARGING CIRCUIT
- MCB MAIN CIRCUIT BREAKER
- LF LINE FILTER INDUCTOR
- C LINE CAPACITOR
- BR BRAKING RESISTOR
- OCH OVERVOLTAGE CHOPPER
- A1,2 MOTORMODULE CONTACTORS
- FD1,2 FREEWHEELING DIODES
- CH1,2 MAIN CHOPPERS
- LM1,2 MOTOR INDUCTORS
- M1-4 MOTOR ARMATURES
- F1-4 MOTOR FIELDS
- MC1,2 MOTORING CONTACTORS
- BD1,2 BRAKING DIODES
- ED EARTHING DEVICE

From the main circuit diagram it can be seen how the four traction motors are connected in series pairs to the GTO-chopper and how this is supplied from the catenary via the pantograph.

The function of the overvoltage chopper is important. It controls the flow of current through the braking resistor during electrical braking, ensuring that the maximum amount of energy is returned to the power system. It also limits the voltage across the line capacitor and motor modules during transient disturbances, so protecting the equipment from damage.

Control system

The entire electrical system is fully microprocessor controlled. The electronic equipment includes a fault annunciator system covering one hundred different faults and operating logic, which formerly consisted of relays.

Auxiliary power supply system

The purpose of the auxiliary power supply system is to convert the direct voltage of the catenary to other voltages and currents needed for different loads in the equipment. There are three subsystems:

- 750 V DC
- 3 x 380/220 V, 50 Hz (3-phase)
- 24 V DC

Location of apparatus

The electrical equipment is mounted in boxes mainly located in the underframe of the vehicle. In the body of the LRV there are a number of cubicles to accommodate the microprocessor etc as well as the driver's equipment.

Bogies

The LRV has three bogies, each of which consists of a frame resting on the wheel axles and coupled to them via axle box elements of rubber constituting the primary suspension of the bogie. The body is attached to the bogie by means of a slewing ring, which absorbs turning movements between body and bogie.

The traction motors are mounted on the bogie frame and the drive is transmitted to the wheels through reduction gears.

Separate blowers are used to cool the traction motors. At each end of the vehicle there is a blower that cools the two traction motors in each motor bogie.

This design concept for the bogies gives good running characteristics over the entire operating speed range.

The roof is of stainless steel sheet. Rainwater drains away through special pipes between the roof and the underframe.

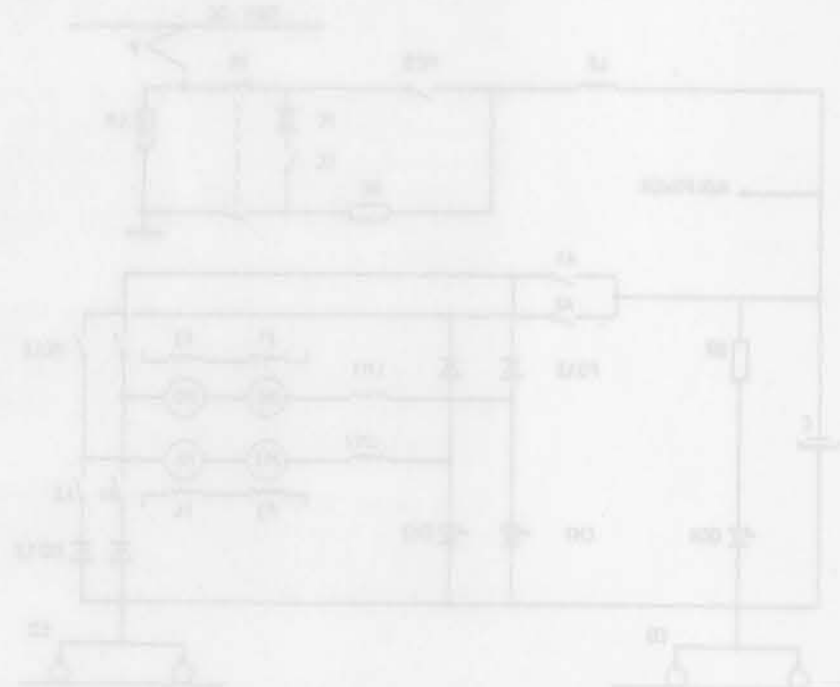
The windows are of hardened glass. Some of them are hinged and may be opened into the passenger compartment. The front window is divided into three sections and is electrically heated.

The seats have frames of reinforced plastic construction with padded seat and back cushions.

The driver's cab is an enclosed compartment with its own heating, ventilation and air conditioning equipment. The driver's seat has step-on coupling for both electrical and mechanical connections. Instruments, a control console and an electronic display to indicate faults are arranged on the panel here.

Electric traction equipment

- 1. MAIN CIRCUIT BREAKER
- 2. OVERVOLTAGE CHOPPER
- 3. LINE CAPACITOR
- 4. TRACTION CHOPPER
- 5. TRACTION CHOPPER
- 6. MAIN CIRCUIT BREAKER
- 7. LINE CAPACITOR
- 8. TRACTION CHOPPER
- 9. TRACTION CHOPPER
- 10. MAIN CIRCUIT BREAKER
- 11. OVERVOLTAGE CHOPPER
- 12. LINE CAPACITOR
- 13. TRACTION CHOPPER
- 14. TRACTION CHOPPER
- 15. MAIN CIRCUIT BREAKER
- 16. OVERVOLTAGE CHOPPER
- 17. LINE CAPACITOR
- 18. TRACTION CHOPPER
- 19. TRACTION CHOPPER
- 20. MAIN CIRCUIT BREAKER



From the main circuit diagram it can be seen how the four traction motors are connected in series pairs to the GTO-chopper and how this is supplied from the catenary via the pantograph.

POWER SUPPLY

Overhead system

Power is fed to the LRV's at 750 V DC from a catenary system. The overhead lines are supported on single steel poles located between the tracks with back-to-back cantilevers. Other suspensions are used only at stations and where the distance between the track centre lines exceeds 6 m. By this means an efficient and yet unobtrusive system has been designed.

DEPOT

Substations

Power is taken from the main supply at 34.5 kV, 50 Hz, and distributed to eight rectifier substations located along the route. Most of the substations are on the surface, at passenger stations.

The rectifiers are of a standard design, rated at 2 MW, 750 V DC, are of the 12 pulse type and are naturally air cooled without forced ventilation.

Six of the substations have two rectifiers each and two have one giving a total installation of 14 rectifiers with an installed capacity of 28 MW.

SIGNALLING SYSTEM

Automatic train control

The entire light rail system will be under the control of an Automatic Train Control (ATC) system of the latest design by Ericsson Signalling Systems of Sweden.

The purpose of the ATC-system is to provide safe operation of the vehicles whilst still allowing reduced headways over busy sections.

The system basically consists of trackside encoders to sense the signal information, beacons in the track to transmit information to the LRV's, antennae on the vehicles to receive the information and a panel to display the information to the driver.

The antenna on the vehicle scans the track continuously with a high frequency signal. When a vehicle passes over a beacon the antenna's signal activates it. The beacon then passes to the vehicle via a carrier frequency the information contained in the beacon on

- prevalent speed
- distance to, and
- state of the next signal

PROJECT MANAGEMENT

A microcomputer in the LRV analyses the information and checks continuously that the given speed limit is being observed.

Should the driver fail to respond to speed limits or signals the equipment acts to slow or stop the vehicle as necessary.

The design and supply of the workshop equipment to be used in maintaining the LRV fleet is the has been entrusted by the consortium to Vickers PLC Design and Projects Division, of UK. This company has worldwide experience of this type of work for Metro and LRV systems.

The depot will be located at Ferhatpasa at the northern end of Stage 1.

The overall site will be some 1600 m long by 125 m wide and will have outdoor tracks sufficient to stable the entire LRV fleet overnight.

The Maintenance Workshop will have a floor area of some 7500 m² and will be fully equipped to service the total fleet.

The facilities available range from a vehicle washing radine to equipment for the repair of major body damage. An interesting feature is that bodies and separated bogies will be moved around the workshop on hover pallets. This is much more flexible and convenient than the use of cranes.

The project is being managed according to well founded principles with the objective of satisfying the aspirations of the client in all respects with the very short time scale which has been set.

Full advantage is being taken of the unrivalled project management experience of the ASEA Group coupled with the valuable expertise of Yapi Merkezi in Istanbul.

The Gothenburg Transit Authority is contributing specialist advice of the operation of a modern, integrated light rail system.

DEPOT

PROJECT MANAGEMENT

POWER SUPPLY

Overhead system

Power is fed to the LRV's at 750 V DC from a catenary system. The overhead lines are supported on single steel poles located between the tracks with back-to-back cantilevers. Other suspensions are used only at stations and where the distance between the track centre lines exceeds 4 m. By this means an efficient and yet unobstructive system has been designed.

Substations

Power is taken from the main supply at 33 kV, 50 Hz, and distributed to eight rectifier substations located along the route. Most of the substations are on the surface, at passenger stations.

The rectifiers are of a standard design, rated at 1 MVA, 750 V DC, and are of the pulse type and are naturally air cooled without forced ventilation.

Six of the substations have two rectifiers each and two have one giving a total installation of 18 rectifiers with an installed capacity of 36 MVA.

SIGNALLING SYSTEM

Automatic train control

The entire light rail system will be under the control of an Automatic Train Control (ATC) system of the latest design by Ericsson Signalling Systems of Sweden.

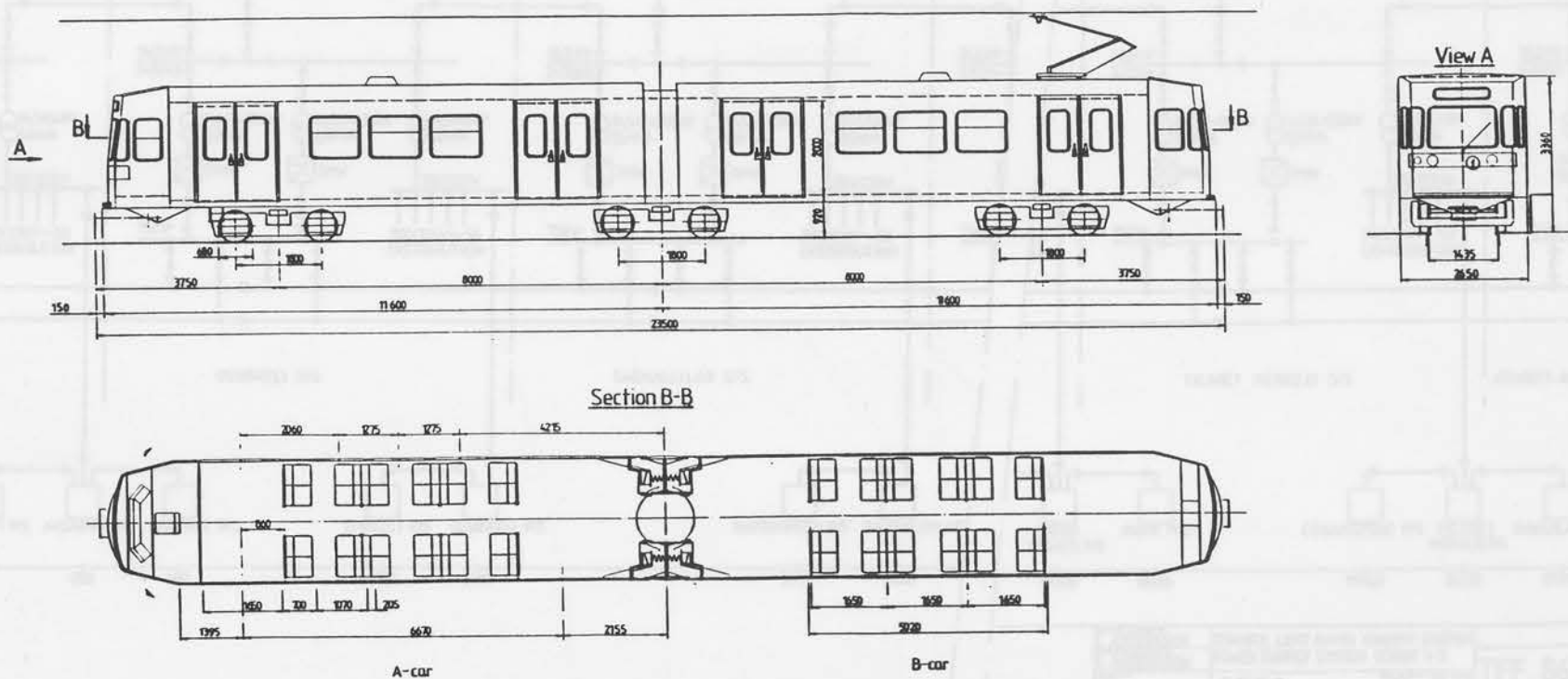
The purpose of the ATC-system is to provide safe operation of the vehicles whilst allowing reduced headways over busy sections.

The system basically consists of trackside equipment to sense the signal information, process in the track to transmit information to the LRV's, and on the LRV's to receive the information and a panel to display the information to the driver.

The system on the vehicle scans the track continuously with a high frequency signal. When a vehicle passes over a beacon the signal is activated. The beacon then passes to the vehicle via a carrier frequency the information contained in the beacon so

- present speed
- distance to, and
- state of the next signal

ASEA TRACTION



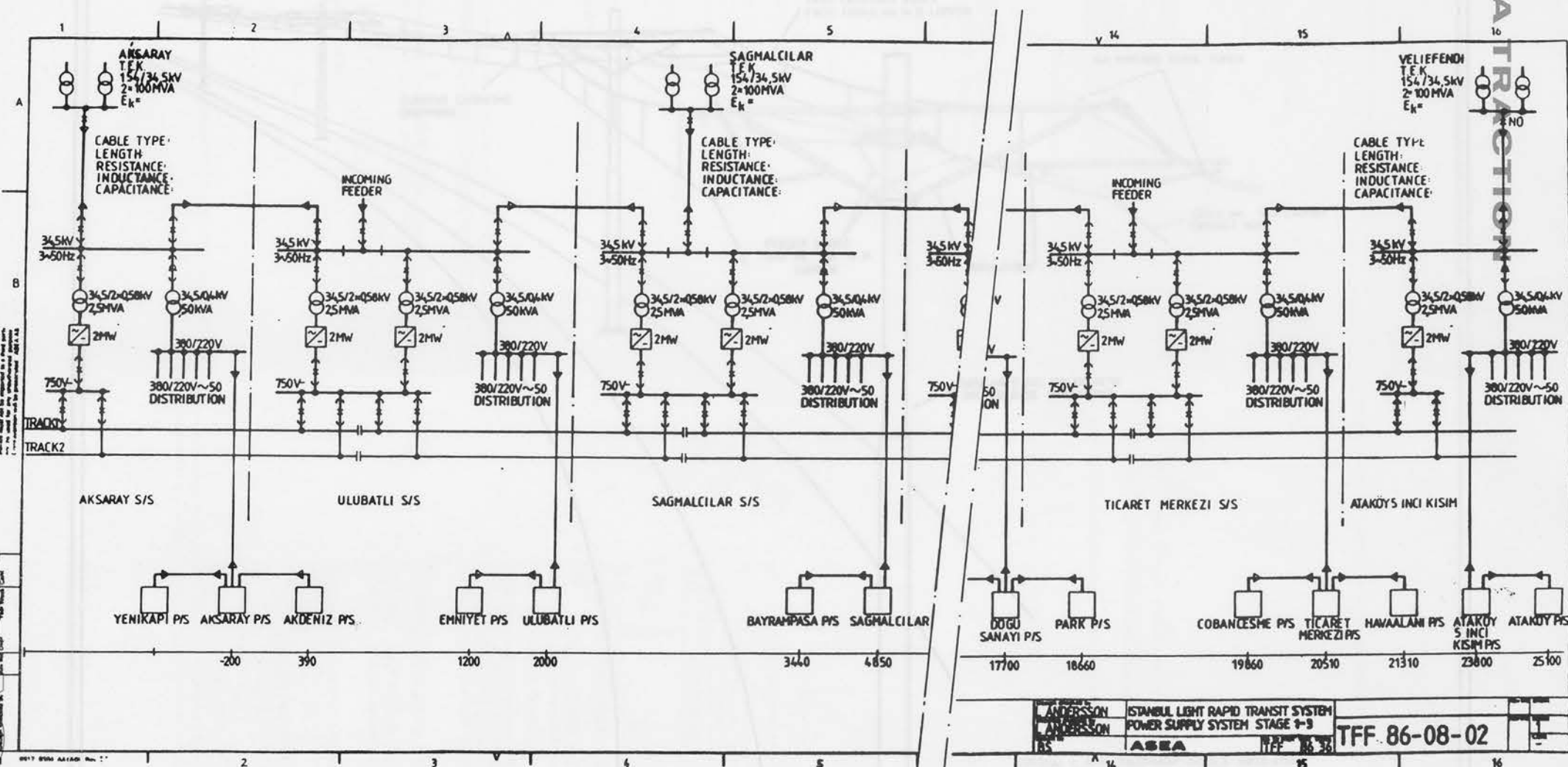
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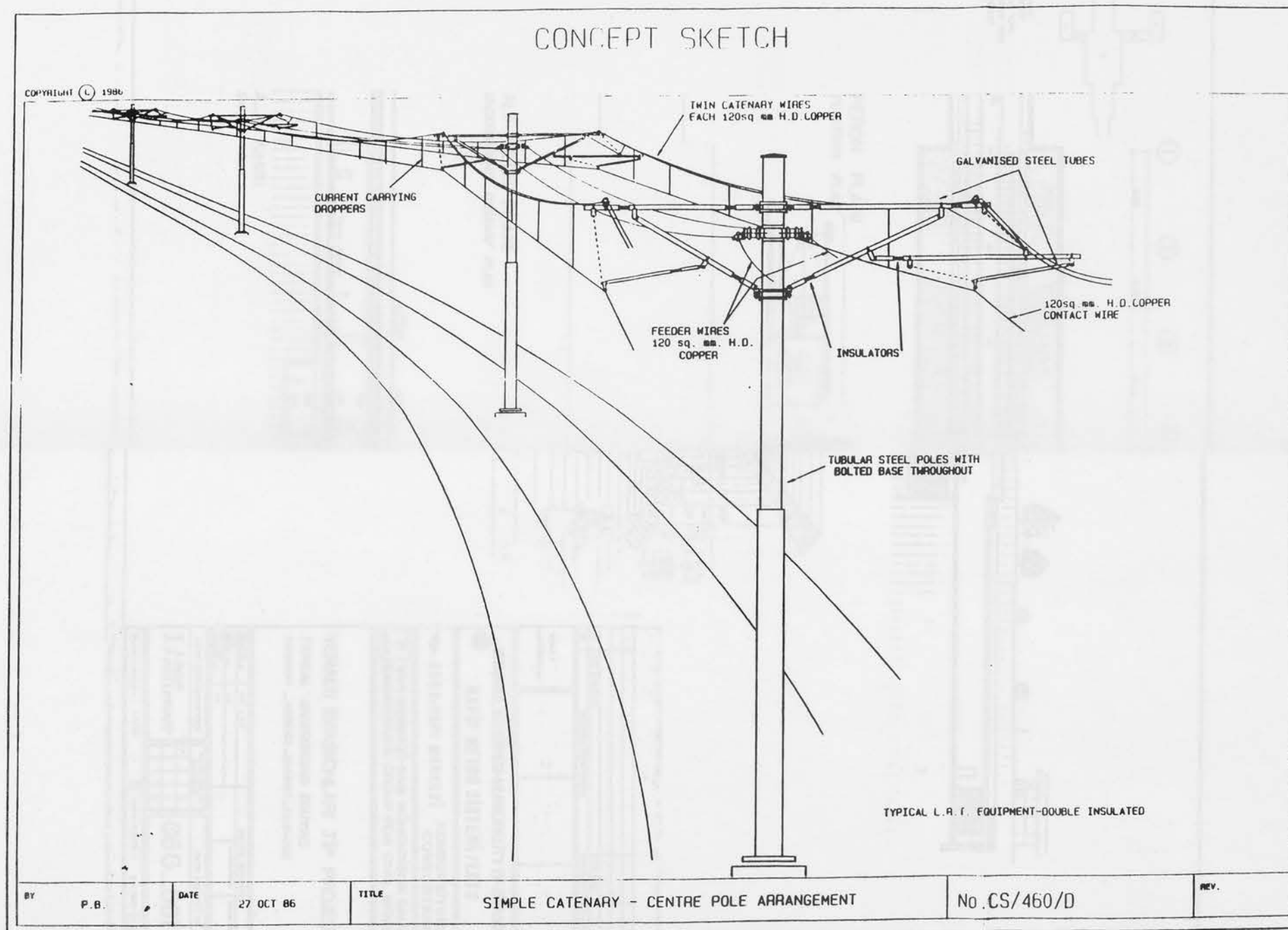
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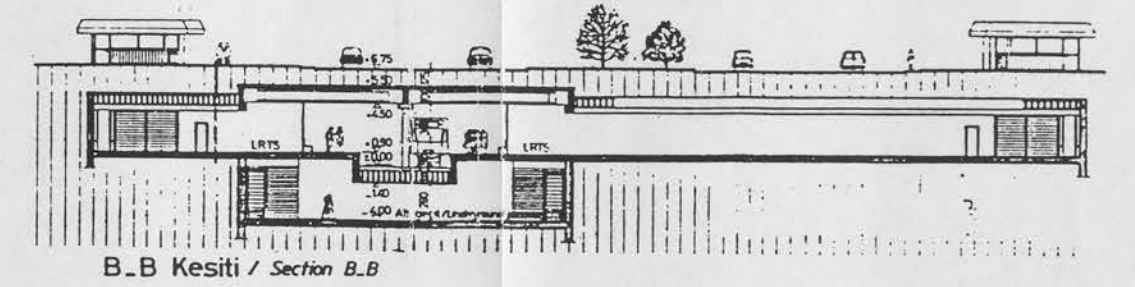
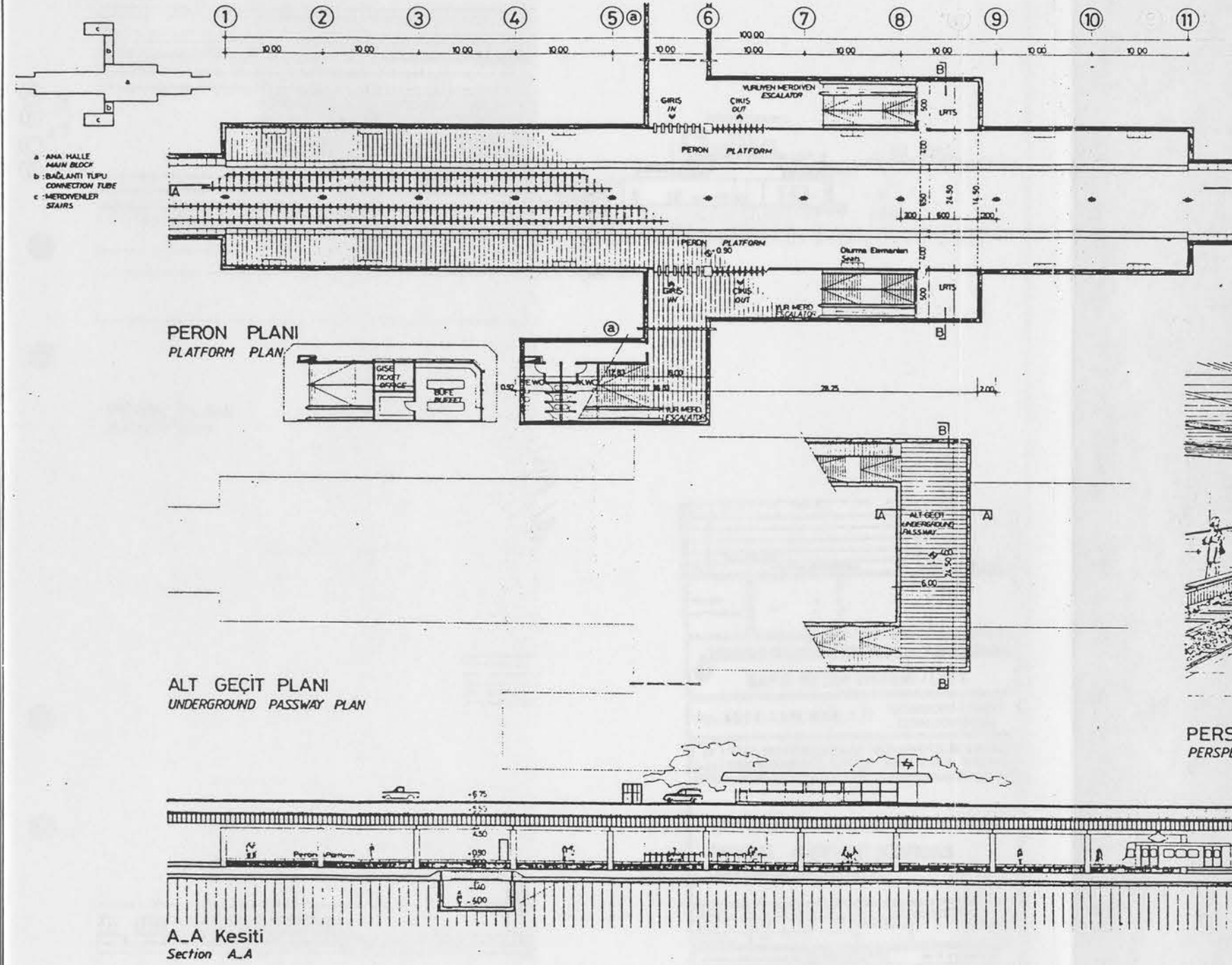
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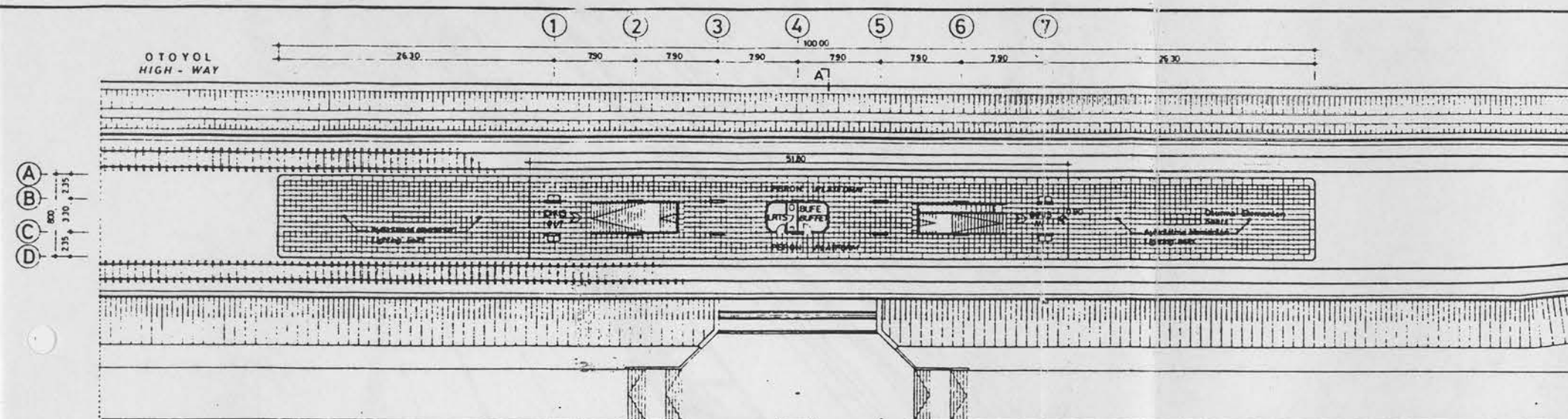
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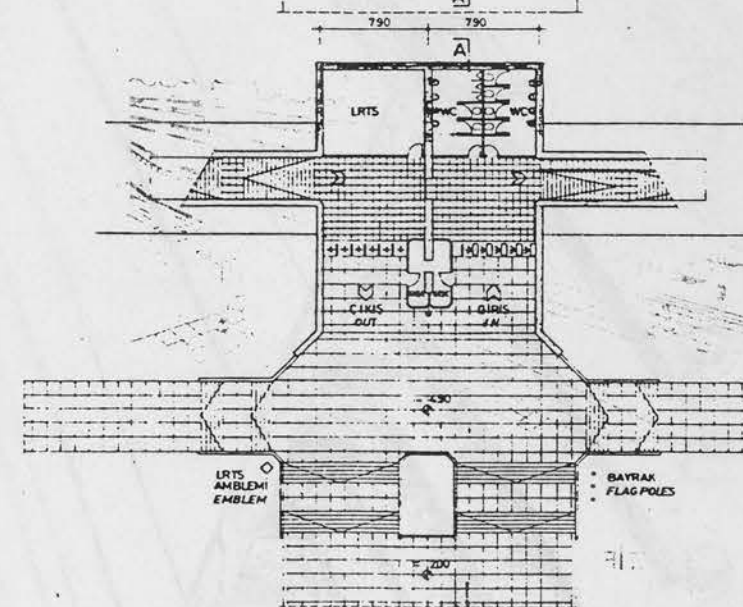




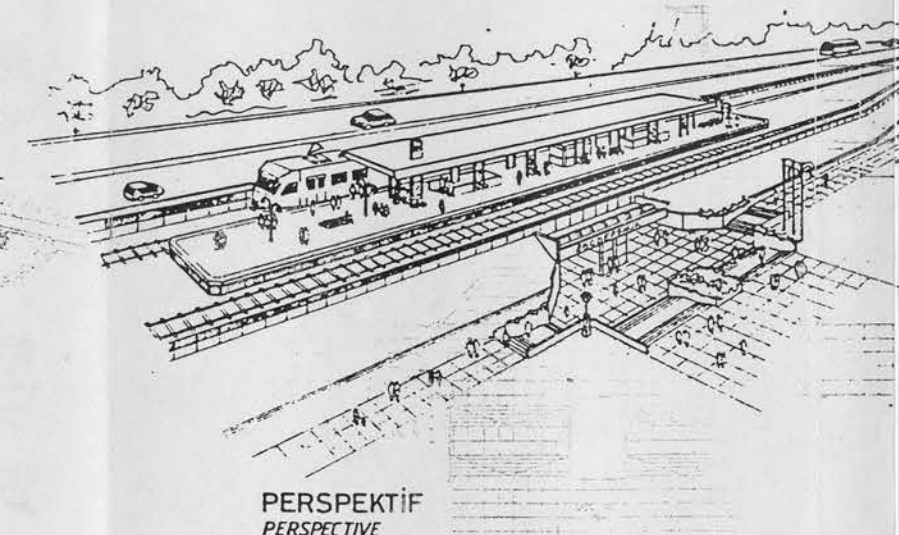
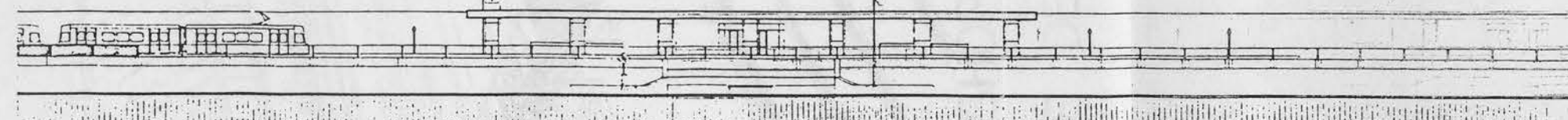
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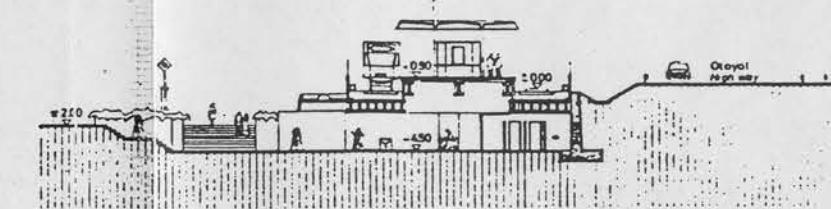
PERON PLANI
PLATFORM PLAN



ALT GEÇİT PLANI
UNDERGROUND PASSWAY PLAN

PERSPEKTİF
PERSPECTIVE

GÖRÜNÜS / ELEVATION



A.A Kesiti / Section A.A

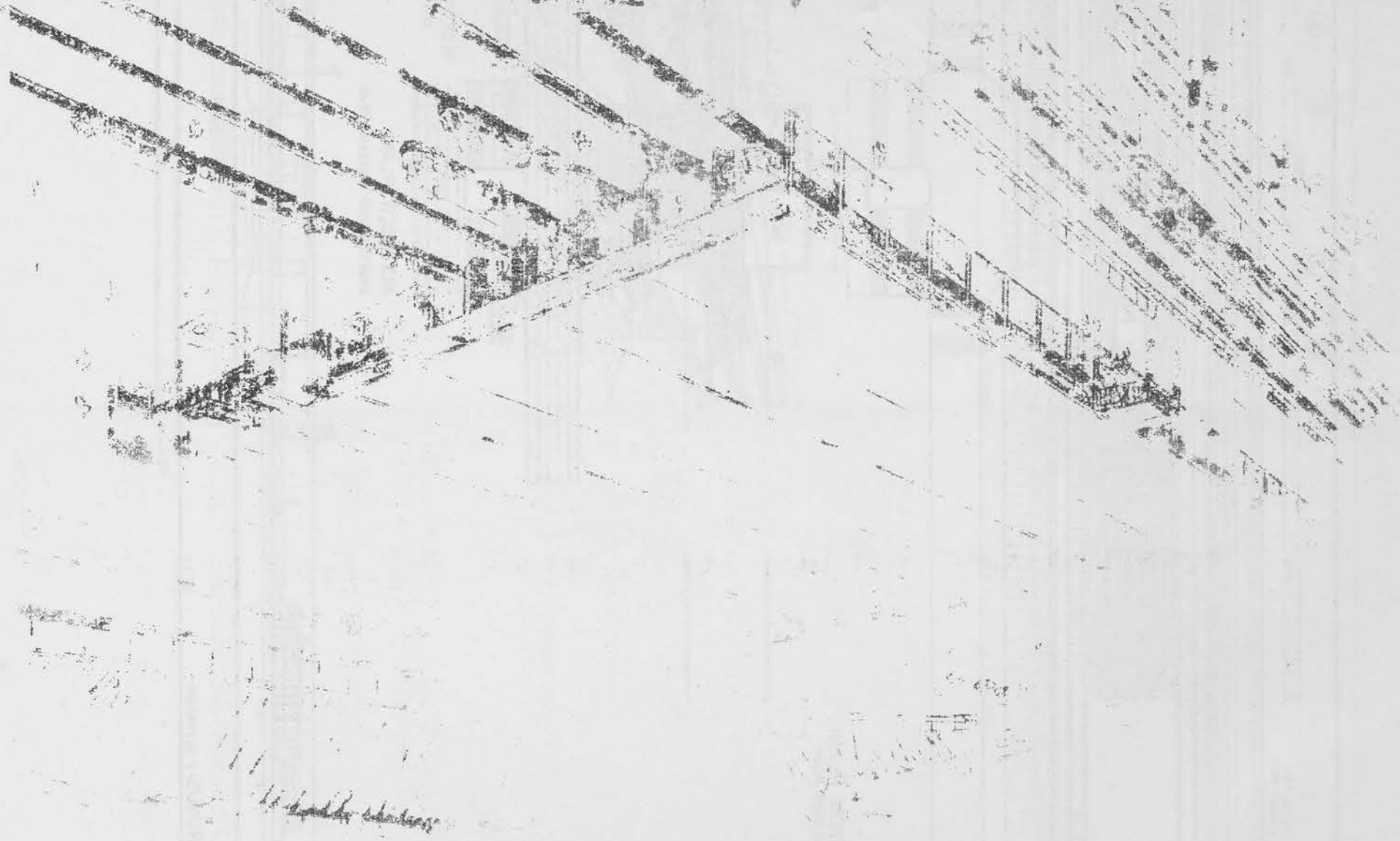
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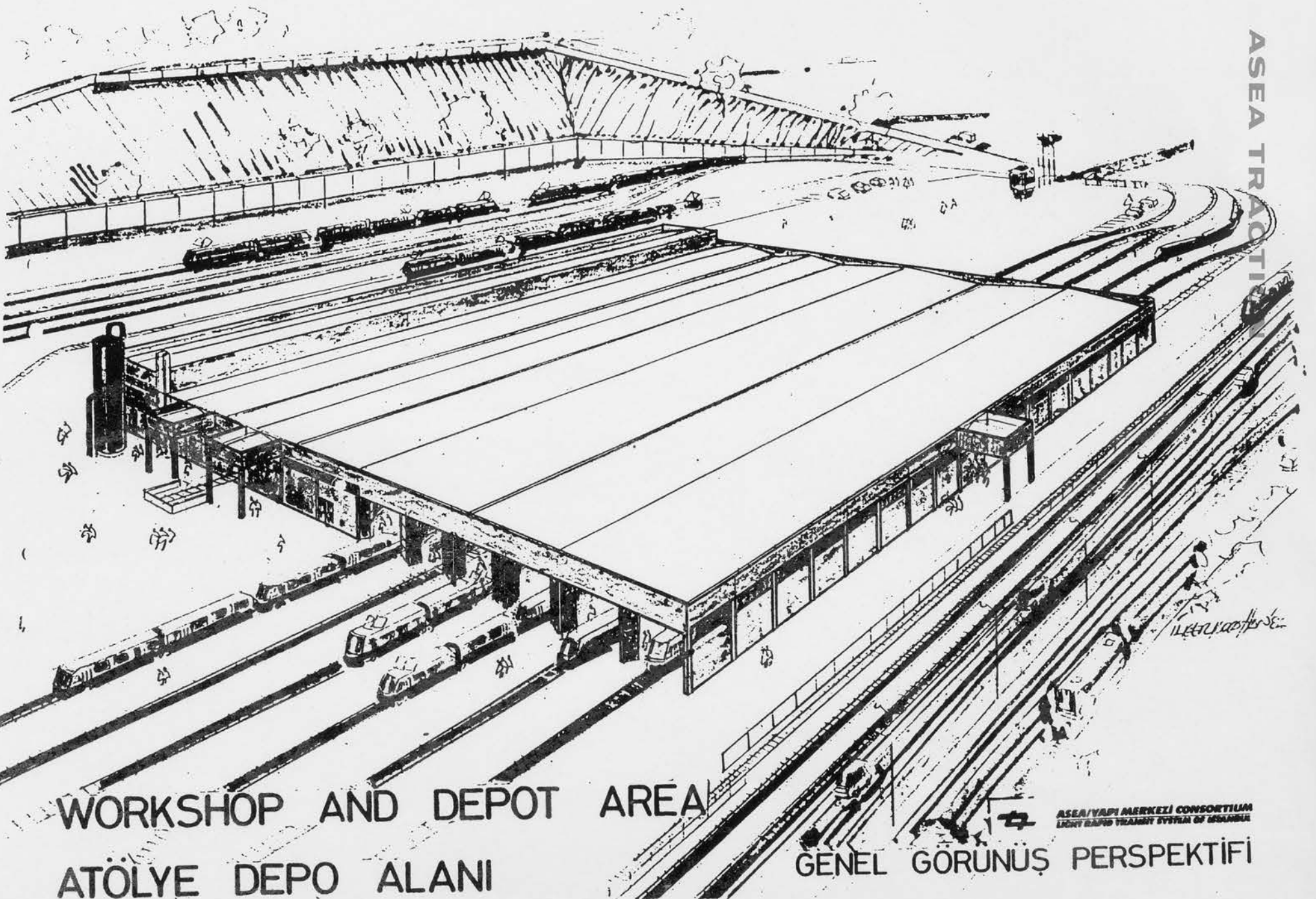
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WORKSHOP AND DEPOT AREA

ATÖLYE DEPO ALANI

GENEL GÖRÜNÜŞ PERSPEKTİFİ

ASEA TRACTING

ASEA

ASEA/YAPI MERKEZİ CONSORTIUM
LIGHT RAPID TRAMWAY SYSTEM OF ISAMBA

СЕМЕТ СОРУМУС ПЕРСПЕКТИВ

АТЮЛГЕ ДЕПО АЛЛАИ
WORKSHOP AND DEPOT
AREA TOP OF POHSHKROW



AREA

WORKSHOP AND DEPOT

ASEA TRACTION

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John T. Finley, Chairman

District 3

Diane Ahrens

District 4

Ruby Hunt

District 5

Duane W. McCarty

District 1

Hal Norgard

District 7

Donald E. Salverda

District 2

Warren W. Schaber

District 6

AGENDA

Room 316 Courthouse
15 W. Kellogg Blvd.
St. Paul, MN 55102
Phone 298-4145

RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY

Tuesday, January 12, 1988

11:00 A.M. - Room 316 - Conference Room

1. Minutes - of the Ramsey County Regional Railroad Authority Board Meetings of: A. November 23, 1987, B. December 7, 1987.
Action Requested: Board approval.
2. Chairman's Comments
3. Appointments to Corridor Task Force - Midway Corridor.
4. Schedule of Midway Corridor Activities.
5. Communication of information on Midway Corridor LRT Study
6. Update on meeting with railroads.

MINUTES

RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY

MEETING

NOVEMBER 23, 1987

The meeting of the Board of the Ramsey County Regional Railroad Authority was held on Monday, November 23, 1987, at 12:10 P.M. in the City Council Chambers. Chairman Finley called the meeting to order.

MEMBERS PRESENT: Chairman John Finley
Commissioner Donald Salverda
Commissioner Warren Schaber
Commissioner Ruby Hunt
Commissioner Duane McCarty
Commissioner Hal Norgard

MEMBERS ABSENT: Commissioner Diane Ahrens

Also Present: Beth Sullivan represented the County Attorney's Office
Frances Glendenning

1. Update from Chairman John Finley

Chairman Finley said he would be very brief in giving this update, the Legislative Delegation Meeting has been scheduled for December 2nd, 1987 at 2:00 P.M. In Room 15 of the State Capitol.

Chairman Finley has a work program that has been worked out among the staff of RTB and our staff, as we are going to be required to have a work program, he passed out a draft to the members of the Board. He went over this with Kathy DeSpiegelaere, Elliott Perovich, and he is asking that this Board have a special fifteen minute meeting immediately before the County Board Meeting which will be held on December 7th to approve the work program so that it can proceed, but he is passing it out now so that members will have an opportunity to review it. Chairman Finley will be talking to the Legislature about this. If the members have any changes to recommend, these can be made before it comes in, if the members wish to contact Kathy DeSpiegelaere.

Chairman Finley said the City of St. Paul has very much of an interest in the corridor, east-west, whether it be on University Avenue, North, or South of it, he had a meeting with the Mayor to make sure that we have that coordinated properly with the City, and he distributed a copy of the memo which he received today. The City understands that the Ramsey County Railroad has the authority to proceed with the study, and we will be looking

to them as a source of information, and that they funnel their information or data that they have accumulated over the years of their studies through our staff, so that we do not continue to reinvent the wheel. These are coordination matters because that is what we are going to be talking to the Legislature about principally, and he wanted the Board Members to know where we are at regarding the RTB because they specifically by legislation have to provide engineering data to the Legislature according to the Statutes and they have been awarded money. So, what we are doing essentially is we are going to do the study, the work program says, the RTB will do it, there is a division of work between the RTB and the County, we are going to use the City as a source for coordination, as well as the Met Council so that everything can be put together with a timeline looking to February 21. The reason February 21 is the date is because that is when Hennepin County has to make a decision under some special legislation. Hopefully, we have some timelines, we are going to show the Legislature that we have been proceeding as fast as we possibly can, but we are going to do it in an orderly fashion, with citizen input, so everyone is aware of what we are doing.

Commissioner Norgard asked if the Advisory Committee is aware of all the things that we are doing.

Chairman Finley said yes, we are forwarding to them this coordination program for their next meeting, to get their reaction. In response to Commissioner Salverda's question, Chairman Finley said that Kathy DeSpiegelaere and the staff of the RTB worked on this, and then the two staffs met with Mr. Perovich and I last week, some changes were made, and this is what you have before you today to review.

The biggest concern of the Legislature is that Ramsey County is not coordinating with anybody, and this is an actual document setting forth the coordination activities that we anticipate on our priority corridor. The Board will then approve this as a policy.

Chairman Finley said we were put on a fast track because the people were saying there is no coordination going on, and he has spent the last two months explaining the coordination we are doing. This is a terrible posture to be in to prove that you are coordinating, so it is necessary to go to all these meetings to explain.

2. Presentation by Vendors:

Kraus Anderson was the first vendor on the agenda. There may be an overlap in the presentation as Ray Rausch said they were invited to provide a general overview of Light Rail Transit.

Mr. Rausch said he is Vice President of Kraus-Anderson Construction Company, and he has with him Oke Wennberg, with ASEA Traction, a Swedish firm that specialized in light rail transit. The two firms have formed a consortium to implement the light rail process.

Mr. Rausch explained that they have put together a video which highlights light rail transit in general, it gives an overview of that, and then it gets into some specifics on a delivery system which might be of interest as far as the overall program is concerned.

Mr. Wennberg thanked the Board for giving him the opportunity to give this presentation, ASEA is a Swedish Company with about 70,000 employees, they have a electrical engineering company, and they are involved in all kinds of transit systems, and he would welcome any questions.

The video was shown to the members.

A summary of this video, showed that LRT systems have opened or will open in San Diego, Portland, Edmonton, Sacramento and San Jose. Even New York is contemplating a new system for lower Manhattan. Light Rail may be proven to be more cost-effective than other forms of mass transit, that it reduces congestion on city freeways, that it is clean, convenient, and fast, or that it generates new enthusiasm for downtown business districts. Riders say it is for all of these reasons, and many more.

Light rail is economical, the cost of building most light rail line is only about 25 to 30% of what a similar stretch of freeway would cost. Labor costs can be far less, one driver for example in a four car train, can move as many as 500, but in busses operating on city streets, one driver can only carry about 60 riders. In some cases light rail is coming close to recovering fully the operating costs at the fare box. In San Diego by early 1987 light rail riders were paying 95% of operating costs.

In Portland light rail is bringing a lot more people downtown, there has been a steady increase in sales, almost 26%.

Light rail also provides an economical, convenient form of transportation for mobility impaired individuals, such as the elderly or handicapped.

With proven technology, state of the art design, light rail, pollution free, quiet and economical, is on the horizon for most urban areas.

Kraus-Anderson Construction Company and ASEA Traction Inc. are the team standing by to bring to the Twin Cities light rail transit project the advantages of the finest local construction management teamed with advanced, proven Swedish technology in a complete light rail system, including vehicles and power. This method which has been successful in Europe will provide the Twin Cities with several advantages. ASEA has designed and built rail transit systems in Stockholm and Gottenberg, as well as Brisbane, Australia. They are capable of handling large scale projects. It is currently supplying a turn key LRT system for Istanbul Turkey.

ASEA has also been instrumental in helping local governments secure financing for their projects. They are responsible for right of way preparation, tracks, stations, the signalling system, the power system, and the vehicles.

Through a joint venture contract civil engineering and construction would be performed by Kraus Anderson providing a shot in the arm to local economy, and local jobs. Time can be saved by this contract, sometimes two to three years. After award of a contract, additional months may be saved, with competitive design, build a new LRT system in less than four years.

Chairman Finley called on the next vendor, BRW, who was represented by Dick Wolsfeldt.

Dick Wolsfeldt addressed the Committee, they are not a vendor of equipment. Their firm is presently under contract to the Hennepin County Regional Rail Authority to prepare what the Legislature mandated from them which was a comprehensive LRT System Plan for the County before them move into any implementation of LRT.

Mr. Wolsfeldt discussed the program that Hennepin County is currently carrying out in terms of preparing this plan. He had some slides which he showed to the members.

Hennepin County was to prepare the system plan, and they are presently studying the Hiawatha corridor, 35 South Corridor, Southwest Corridor, Northwest Corridor, University Connection, and Downtown Minneapolis. The objective is that some of these corridors have had more detailed previous studies, as opposed to the University Connection, 35 South, where there are still significant location options that are being discussed. They are to define an alignment where light rail will be provided, where the stations would be located, the ridership in each of the corridors, where the stations would be located, what the capital costs would be, operating and maintenance costs, the benefit of the system, how it would relate to feeder busses in each of the corridors and how the park and ride at each of the stations might work, what interface there would be with street operations, and what development potential there would be around each of the stations.

The objective is to provide that information for each of the corridors, so that the Regional Rail Authority could then choose among those corridors, to put their plan together.

Questions to be resolved or addressed are where will LRT service be provided on a 20 years perspective, and in the first staging, how will the system be funded - private sector and public sector, how will the system be implemented, there are other approaches than the turn key approach,

and there are other approaches to the implementation, and advantages and disadvantages of each, and then ultimately who will operate the system, the MTC, is it appropriate that maybe the builder of the system also operate the system, and there are other options. These are the major questions that Hennepin County is attempting to answer before they get into the implementation.

Hennepin County has set up an Advisory Committee process which is very extensive, a CitizenCommittee has been set up in each corridor to look at routing alternatives, station alternatives, feeder bus routes, park and ride sites, so each of those corridors has that kind of an advisory committee. In addition they set up a technical advisory committee composed of essentially the staffs of local units of government, and some of the regional agencies in which light rail service is provided. They also expect to hold some public forums.

This will all feed into an Intergovernmental Advisory Committee which is composed of the mayors of the communities through which Light Rail will be provided, in addition some of the members of the City Council as well as representation from the RTB, Metropolitan Transit Commission, and other entities that have regional rail authority.

This is a very strong participatory process. There will be a Financial Committee and a Land Use Advisory Committee form.

The Legislation says that each local unit of government has to approve the Light Rail Transit Plan as to where it is located, where the stations are, prior to its implementation. This plan will be sent to each community through which service is being proposed before the Rail Authority addresses the issue.

Time Schedule - the Legislation says they have to be completed in July with this system plan, objective is to complete it in February, so that if there is any additional conditional legislation required it can go before the 1988 session.

Systems standards are being established, about handicapped, stations, safety and security, these are region wide.

The major question is how the vehicles, civil work, track work, the stations, communication, electrical signals, how these relate to the operations of the system both the feeder busses and the LRT system, and the policies what land development is related both on land right of way, adjacent private land, and how the system is financed. People are suggesting that they invite and look for a single entity to carry out that implementation, super turn key, they would design it, build it, operate it, and participate in the financing of the system. Others say that that might be appropriate in the United States. There is a significant discussion going on in Hennepin County right now as to what the role of the private sector and public sector, role of the Transit Commission versus other operators, role of land development in this

process, and how do you set up an implementation framework to respond to the various interests that people have.

There is a county line between Hennepin and Ramsey, and one of the corridors is called the University Connection between downtown Minneapolis and the University of Minnesota, there is a fairly strong interest in Hennepin County to get the first stage system at least to the West Bank of the University of Minnesota because of the very high ridership that exists there. They are looking at three different ways of serving the University of Minnesota, one is on Washington Avenue in the center of the campus, the other two involve the Burlington Northern abandoned bridge which is called bridge 9, and one is involved with the James J. Hill Stone arch bridge, which would serve on these railroad tracks to Dinkytown.

With any of these three alignments the option to either put light rail services on University Avenue, or up in the railroad track exist, so none of those decisions will dictate what service is appropriate or inappropriate for Ramsey County. Their service would likely stop at this location, and Ramsey would have the option of coming down University Avenue, or getting up to the railroad tracks in either case. In fact, they specifically - their charge is that they do no light rail planning outside of Hennepin County, so they are not making any decisions that will impact a location decision for light rail in Ramsey County.

Mr. Wolsfeldt said this was an overview of what they are doing, and he would be happy to answer any questions.

Chairman Finley said the impact, if we are to connect, where we connect, and the type of technology that would be necessary for the cars to continue coming over into Ramsey County, so the decisions made over there will have very much of a direct impact practically speaking as to the type of technology, and where both lines make the connection.

Chairman Finley said that he appreciated Mr. Wolsfeldt coming over, he was glad that he appeared at the Advisory Committee, as one of the charges that we have given to that Committee is to start gathering information as to what is going on externally from Ramsey County so that they have an idea as to how to try to plan internal, or give us advice internally, they have to know how we are going to be affected by those outside of our boundaries which includes Hennepin County.

Commissioner Salverda asked if Hennepin County is their only client, are they working with other jurisdictions also. Mr. Wolsfeldt said they are working in Detroit, St. Louis, Oklahoma City, and Phoenix right now.

Commissioner Hunt asked what they are doing in Detroit, and how that might relate to the people mover project they have under way there.

Mr. Wolsfeldt said there is actually no relationship. Detroit has had a history looking at fixed guideway transit in various corridors that is almost as long as the Twin Cities history. Their Mayor has had a very strong interest in the subway of the Woodward which is a central corridor radiating from downtown Detroit. There has always been a dispute with the suburban units of government versus the center city as to whether that capital cost is appropriate or inappropriate in terms of transit, and they have been retained to attempt to resolve that issue. It is not a very ^{simple} issue to resolve. Question is how do you deploy light rail transit, they are accepting the technology in the Detroit region.

Chairman Finley again thanked Mr. Wolsfeldt, and said we may be calling on him again for further information as we get down the line here.

Commissioner Schaber commented that the Minneapolis Paper had information that the cost of the Hennepin County System will be from \$550 to \$660 million dollars, this was basically construction. Mr. Wolsfeldt said that was the capital cost. They have a Financial Advisory Committee who is to come up with funding sources to pay for the system, they also have the Citizens Advisory Committee who are out in individual corridors, they are under a fairly tight time frame to complete this comprehensive plan by February. They took three alternatives of being fairly aggressive versus being less aggressive in terms of what might happen in Stage 1, 2, and 3. One of the issues in Hennepin County is whether downtown Minneapolis has a subway or underground construction in Stage 1, or whether that is done at a latter point in time, or not done at all. This would be in round numbers a \$100 million decision. The alternatives they have vary in terms of subway in first stage, last stage, or no subway at all. Within that they have the amount of miles that would be built in each stage. This included in the neighborhood of between a low of ten miles and a high of fifteen miles of service in stage one, and then adding generally between eight to ten miles in each subsequent stages. That is what made up that figure. The total miles would be in the neighborhood of thirty to thirty-five miles, with a subway, and maybe in the 35 to 38, to 40 miles without a subway. The cost could range from \$10 to \$15 million per mile, compared to the freeway urban cost is \$50 to \$100 million per mile which is not uncommon.

A copy of the video being used today will be furnished to the Regional Railroad Authority, and Chairman Finley thanked the vendor, and said it would be very useful.

Chairman Finley introduced another vendor, Mark J. Kosmas, President of MSR, Inc.

Mr. Kosmas distributed a handout to the Board. His firm is in the process of forming a consortium consisting of reputable local contractors with experience in the construction of light rail transit system components.

This consortium is being formed with the intent of bidding on a potential contract to engineer and construct a light rail transit line or system in Hennepin County, as well as Ramsey County. An attractive feature will be the competitive bid nature of the consortium with a "Guaranteed Maximum Price" which should keep the capital cost figure for the proposed LRT system down to a minimum, which in turn should keep taxes down in Ramsey County.

Mr. Kosmas discussed the handout concerning the roles of Ramsey County and MSR who is going to focus on Made in Minnesota and Made in USA system components, with the creation also of jobs for Minnesotans. He has been discussing with Tom Osthoff the possibility of getting Iron Range workers involved in these projects. He is doing his best to follow up on Representative Osthoff's suggestion.

Chairman Finley thanked Mr. Kosmas for coming to this meeting today, and he appreciated the patience of the vendors due to the delay in the starting of this meeting.

There being no further matters to come before this Board, the Chairman Finley declared the meeting adjourned.

MINUTES

RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY

MEETING

DECEMBER 7, 1987

The meeting of the Board of the Ramsey County Regional Railroad Authority was held on Monday, December 7, 1987, in the City Council Chambers. Chairman Finley called the meeting to order at 9:35 A.M.

MEMBERS PRESENT: Chairman John Finley
Commissioner Diane Ahrens
Commissioner Ruby Hunt
Commissioner Hal Norgard
Commissioner Duane McCarty
Commissioner Donald Salverda
Commissioner Warren Schaber

Also Present: Michele Timmons represented the County Attorney's Office
Frances Glendenning

1. Approve Work Program for LRT Activities on the Midway Corridor.

Chairman Finley advised the Committee that there would be only this one item on the agenda for this meeting, and he would go through this very briefly.

This Work Program was discussed with the Legislative Delegation at the meeting last week which Commissioners Hunt and Schaber attended, and Chairman Finley said the Commissioners could attest to the fact that the Legislature is very interested in this matter. We had a very good turnout to show that that Ramsey County is doing an extremely good job in coordinating with the other metropolitan counties, the RTB, and the Metropolitan Council. This program was put together by the staff of the RTB and Kathy DeSpiegelaere of the Public Works Department of Ramsey County.

There are a few minor things, as we have forwarded this to the Citizens' Advisory Committee, we wanted to get some of their input for this meeting today. There will be some minor modifications which he would like to leave up to the staff to change.

Chairman Finley continued, going through a few of the highlights of this Work Program, the RTB, under the Statutes, has authority to do the design and implementation of the Midway Corridor, and they have some money available. He feels that it would be in Ramsey County's best interest, since this is our Number 1 priority, to help them tap their money, rather than us tapping our own funds for this study. The study is going to involve three alternatives, the University Avenue which Metropolitan Council has already studied in depth. The study says essentially let's look at the Southern route coming out along the short line Shepard Road, and the Northern route which comes across, south of Energy Park and along Pierce Butler Road, and let's look at those as alternatives to the University information, how does it affect the ridership, is it going to be less cost effective, is it going to be more cost effective as it is in its own exclusive right of way. Is there land available from the railroads, if it is, how much will it cost? Is it necessary to get into litigation for condemnation and get the answers to those questions for these alternate corridors, as this is the Number 1 priority for the metropolitan area. This is the one that they feel would probably be self-supporting if any light rail was going to be self-supporting in the metropolitan area, this would be the East-West corridor on University Avenue. What is being suggested is why tear up University Avenue for three years, why should we get into a fight with all the business people if we did proceed with it, where does it stop, who is it going to affect - and all those things without at least looking at the alternative of the exclusive right of way to alleviate some of those hassles and also look at the cost effectiveness. Everyone agrees that those have not been looked at in depth, as much in depth as University Avenue. By doing those two corridors, we are not reinventing it, what we are really saying is, let's look at it in relationship to the data we already have, is it better, is it worse in each of the the thirteen different areas that are set forth with the Task Force.

The large map which was used at the presentation to the Legislative Delegation was discussed by Chairman Finley. He pointed out that there is a rail line which goes just north of Energy Park, also to connect around by the Pierce Butler - Amtrak Station, and this swings up just north, it is a trestle that you go over as you go into Como Park. This line moves up at McDonough Housing Project, and all of the studies have shown that people of the lower income are more likely to use mass transit than people with higher income. Chairman Finley feels that if we are going to be doing that, also as it affects our getting connection to Hennepin County Minneapolis, as it affects the businesses and people in Energy Park, it is about the same, but as it loops, we are taking in a whole other series of people not only in the City of Saint Paul, but really on the northern tier of Roseville and Maplewood, that maybe we should look at that in addition, just as in relationship to the criteria. The Work Plan does not call for this, and what he is suggesting that maybe we should let the staff add it to the Work Program as an alternative. He mentioned at the meeting that we should possibly look at this as a third one.

Another change in the Work Program suggested by Chairman Finley is that the Citizens Advisory Committee would like a little more definition of what their role will be. As you can see from the Work Plan, we would be setting up a Task Force consisting of the Community Councils who are affected by the alternative, and also some of the civic organizations. What he would like to do is to have the Task Force recommendations come to the Citizens Advisory Committee before they come to this Board, so we would get their input on it. There is no definite statement as to what happens with the Task Force recommendations, and it would seem to him as we have the Citizens Advisory Committee in force, and the structure would call for that anyway, that we adopt this.

Chairman Finley said there is another thing, to specifically mention that the recommendations should include any entrances into the downtown area, as one of the problems with University Corridor is it says University Avenue, but it really ends up stopping at the Capitol, and we should probably say it should come in at Lowertown, where should it come in, maybe we should get that recommendation, even as it affects the University Corridor, if they have some recommendations.

If these are the only changes or additions, if ^{we} were to approve the Work Plan today that we would just instruct the staff to add the actual verbal part in that. Chairman Finley said that the RTB would be voting today to also approve this Work Program, and to instruct their staff to proceed with the study. This has been reviewed with their staff and Kathy DeSpiegelaere, and he has reviewed them with Elliott Perovich as we feel these should be specific. On Friday there will be another meeting with the chairmen of the seven counties, as Washington County has now set up their Rail Authority, who act as an Advisory Committee to Steve Keefe, along with Mr. Perovich and Mr. Snowden from the MTC. There is going to be a statement at this meeting regarding the MTC's role as right now they are the operating entity of Metropolitan Transit as we certainly cannot exclude them. The question was asked at the Delegation meeting as to how he felt it was going to operate, and he said he would imagine down the road it was going to be operated by a Metropolitan Agency. We have an operating Metropolitan Agency in place, and he cannot see some changing, but that is for another session, so we should involve the MTC at the present time.

Commissioner Hunt asked if this is the most viable alternative, this University Avenue Corridor or one of the others, it looks to her as though there is 80% in Ramsey County, and it may equally serve Ramsey County and Hennepin County. She wonders how we are going to end up paying the bills, construction, etc., we may end up paying 85% of everything, or what.

Chairman Finley thinks that this study will include also the financial analysis of it and the alternatives, and he knows that one of the things that has been discussed at the Metropolitan Council Advisory Committee is the alternative type of taxes that could be used, and only one of about five things that are going to be looked at involve the property tax levy. The rest are either metropolitan-wide type tax, and that is one

of the concerns. One thing that has precipitated some of the concerns of the Delegation is that if Hennepin County proceeds, we do not want to be caught subsidizing Hennepin County's construction or implementation without us having enough input at least as to technology, whether or not we are going to proceed or anything else. This question was raised at the Delegation Meeting, and was put to Steve Keefe by one of the Legislators, "What do you think about the Legislature authorizing the Metropolitan Council to levy a tax, and then you apply, much like we do through our Regional Park Fund for funds?" Mr. Keefe said he would never turn down a levy authorization, but that is one of the alternatives that is already being considered for legislative authority, and that may be a way for us, this is one of the things that we should be looking at. Right now we are limited to 2 mills, and we are no where near that.

Commissioner Schaber wished to compliment Chairman Finley for the fine job he did at the Legislature Meeting, he was very impressed, and thinks that Delegation was too as to what we have been doing in a very short time. Commissioner Schaber has been concerned about this from the start, that he thinks that we are all being pushed into something that he is not so sure we should be into to start with, particularly, when Hennepin County is looking at the cost of their Light Rail System at \$660 million. He cannot see how Ramsey County can afford to get involved unless we go to some other type of funding, and even then, he is not sure it is worth the expenditure. What concerns him, we are being driven by another County by Legislature who seem to be very attuned with the idea of Light Rail, and quite supportive of it, which he was somewhat surprised at.

Commissioner Schaber thinks that the Ramsey County Board should not be pushed into something until we make our own study and analysis. His other concern is to the Advisory Committees and things like that as they may be getting the feeling that really they do not have enough time to take a look at the issues, or will the District Community Councils have enough time to take a look at issues. We are being pushed too fast on this one and he would like to see things slow down so we can take a long, hard look at it, and see if we can really justify it from the standpoint of cost. He does not know at this point.

Chairman Finley agrees with Commissioner Schaber, the push is not really from Hennepin County as much as it is being pushed by certain amendments, Hennepin County is proceeding fast. One of the things in the Statute which only relates to Hennepin County, is that they must have their engineering, design and implementation program in place by July, and they are trying to do it before the end of this session to report back to their Delegation. This is what is pushing everything else, as if they did not have to do it, and they didn't do it, we would not have to catch up to speed as fast either, but it is in the bill, and it is creating a problem for all the rest of us.

Commissioner Schaber does appreciate it, but if they then make a decision on design, and that type of thing, it may almost mean that we will have to move along with the same type of system because of where their line stops, and ours starts, what are we going to do, change trains, or whatever else, and the other thing we have to be concerned about is what type of egress into the downtown area. Hennepin County is considering this issue as well, some of those costs can be significant if you are going to tunnel under as opposed to surface. The point is these are very significant decisions, long range implications, large dollars, and all of a sudden we are being forced into a very short time frame - he is very concerned about this.

Commissioner Hunt thinks if things happen the way Commissioner Schaber indicates that Ramsey County has to be prepared to inform our Delegation that we want this done on a logical, sensible, reasonable time table, and since whatever happens at the Legislature has to be approved by the entire Legislature, it would not be unreasonable to point that out, and to see that Hennepin County does not proceed unless things are reasonably in place. We should watch that very closely, as we should not be pushed into it, the other counties such as Washington and others might be adversely affected too if there are those kinds of time tables forced upon them.

Chairman Finley said the Delegation Meeting the other day, if for no other purpose, it served a good purpose for informing them as to why we are forced to proceed so fast. At least they have been tipped off, and the way it ended up was they are looking forward to us to come back, they know that this timetable is extremely aggressive, we made no bones about it, and we told them we would be lucky to have anything in place by the 21st of February, but it is a goal. What they are looking forward to is for us to come back sometime, mid-February probably, and just tell them where we are at. At that time we should tell them specifically, as we may have a little better handle on it, as to where our problems are. Right now, we just have a perception that we are going too fast, we might have more definitive obstacles by that time. We should plan to have another session like that.

Commissioner Hunt believes there is another factor we should keep in mind was the fact that St. Paul was going directly to the Legislature, expressing their interests and concern about Light Rail without coming through the County, and she felt that it was important to clear that up with the Legislature.

Commissioner Ahrens asked how soon the Task Force would be appointed, and in place, and does that have to come into this Board for official appointment. Would this be done by staff?

Chairman Finley would assume that this Board is going to make those appointments, and he was going to suggest the affected Commissioners give him some suggestions about their Community Councils. What he has planned to do was sent a letter to the Community Councils, and asking them for the recommendations, and also to the Midway Civic Association, and then if there was anyone else the

Board would suggest representing an organization, and then let them appoint or recommend the appointment of someone from their organization. This might be the easiest way to do it, and then this Board would make the appointments. This would be done at the first meeting in January. Chairman Finley will get the letter out today if the Work Plan is approved.

Commissioner Norgard asked what is being requested of this Board today. Chairman Finley is asking that the Work Program ^{be approved} and authorize the staff to insert the specific involvement of the MTC, and specifically refer to the entrance to Downtown in that recommendation.

Commissioner Salverda moved the recommendation, and Commissioner Norgard seconded this motion.

Commissioner McCarty shares Commissioner Schaber's discomfort with the speed with which we are being pushed, and this appears to convey that our horizons and with the University Corridor, how will we address that, or how will it be addressed in the future, will the Advisory Committee be dealing with that before final decision on the University Corridor in terms of the rest of the County, in particular, those northern tiers that are now choked up with back to back freeway systems.

Chairman Finley said they are sort of setting their own agenda, but this plan is going to call for them to view the Task Force recommendation prior to coming to this Board. How they deal with it, if they deal with it in relationship to the overall scheme, or specifically with those recommendations, that would be up to them.

Commissioner Schaber mentioned that Robert Van Hoef was present at the meeting, and suggested that possibly he should address the Board.

Mr. Van Hoef introduced himself, Robert Van Hoef, and he has the honor of being elected Chairman of the Citizens Advisory Committee. At the last meeting the Advisory Committee tried to catch up a little bit on what was going on in Light Rail Transit, and then they devoted particular attention to the Work Program on the study for the central corridor. He believes their concern echoes those expressed by Commissioner Schaber and others here that the time table is very short, but he believes in that kind of a Work Program you can hire consultants and they can go as fast as you want them to go, but their particular concern was, if out of this study there was going to be any community consensus on what was the proper solution, and what the people really wanted. It was a dangerous thing to squeeze that consensus into a group of Committees that had to come up with opinions in a short time of a study. Therefore, the Advisory Committee is offering to the Board the fact that the Committee would serve as the first group of review, and attempt to precise the issues and develop the questions that can go to the numerous Task Forces. He thinks that this would be a better move, or the Committee thought it would be a better move and that it is appropriate with the responsibility that the Board

has defined for the Advisory Committee. They felt also that the Work Program was pretty nebulous about the role of the Committee, so they searched to find that role in the Work Program, and he thinks they would just offer if the Board feels it is appropriate, that the Committee would be the first group of review, working with the various consultants, and trying to precise the issues and the questions that would then go to the Task Forces. One of the reasons that is important is that working now out on University Avenue he knows there are some strange and different opinions about Light Rail Transit, and unless we carefully develop the issues, Light Rail Transit in Ramsey County could become a question of how do they feel about parking in front of their store, and they don't like the fact that there are stops every half a mile, so the person would be opposed to it. These kinds of issues have to be rather delicately presented. Mr. Van Hoef said he would be happy to answer any questions.

Chairman Finley thanked Mr. Van Hoef for the information.

The Ramsey County Regional Railroad Authority approves the Work Program for LRT Activities on the Midway Corridor, with the staff to incorporate in this Program the necessary additions to cover the specific involvement of the MTC, and specifically refer to the entrance in Downtown. This seven page Work Program is attached hereto, and made a part of this resolution.

Roll Call: Ayes - 7, Nays - 0
Motion carried.

There being no further matters to come before this Board, Chairman Finley declared the meeting adjourned.

Attachment - Work Program



Office of the Executive Director

286 Court House 15 W. Kellogg Blvd.
Saint Paul, Minnesota 55102
(612) 298-5980

Terry Schutten, Executive Director

County Commissioners

Diane Ahrens
John T. Finley
Ruby Hunt
Duane W. McCarty
Hal Norgard
Donald E. Salverda
Warren W. Schaber

M E M O R A N D U M

TO: Commissioner Ahrens
Commissioner Finley
Commissioner Hunt
Commissioner McCarty
Commissioner Norgard
Commissioner Salverda
Commissioner Schaber

FROM: Patrick O'Malley

DATE: January 12, 1988

RE: Update on Ramsey County Rail Property

From the Railroads

Chicago Northwestern (CNW) has indicated a willingness to share some of its track usage for potential light-rail transit use, as shown on the attached map (see item 3).

Soo Line is somewhat reluctant to commit use of the track as the Burlington Northern (BN), Amtrak and CNW are operating on their main lines (joint track agreements), particularly the east-west corridors.

Burlington Northern (BN) would like more information on timetables and frequency of use before making any commitments.

Outlined below are some of the concerns of the railroads:

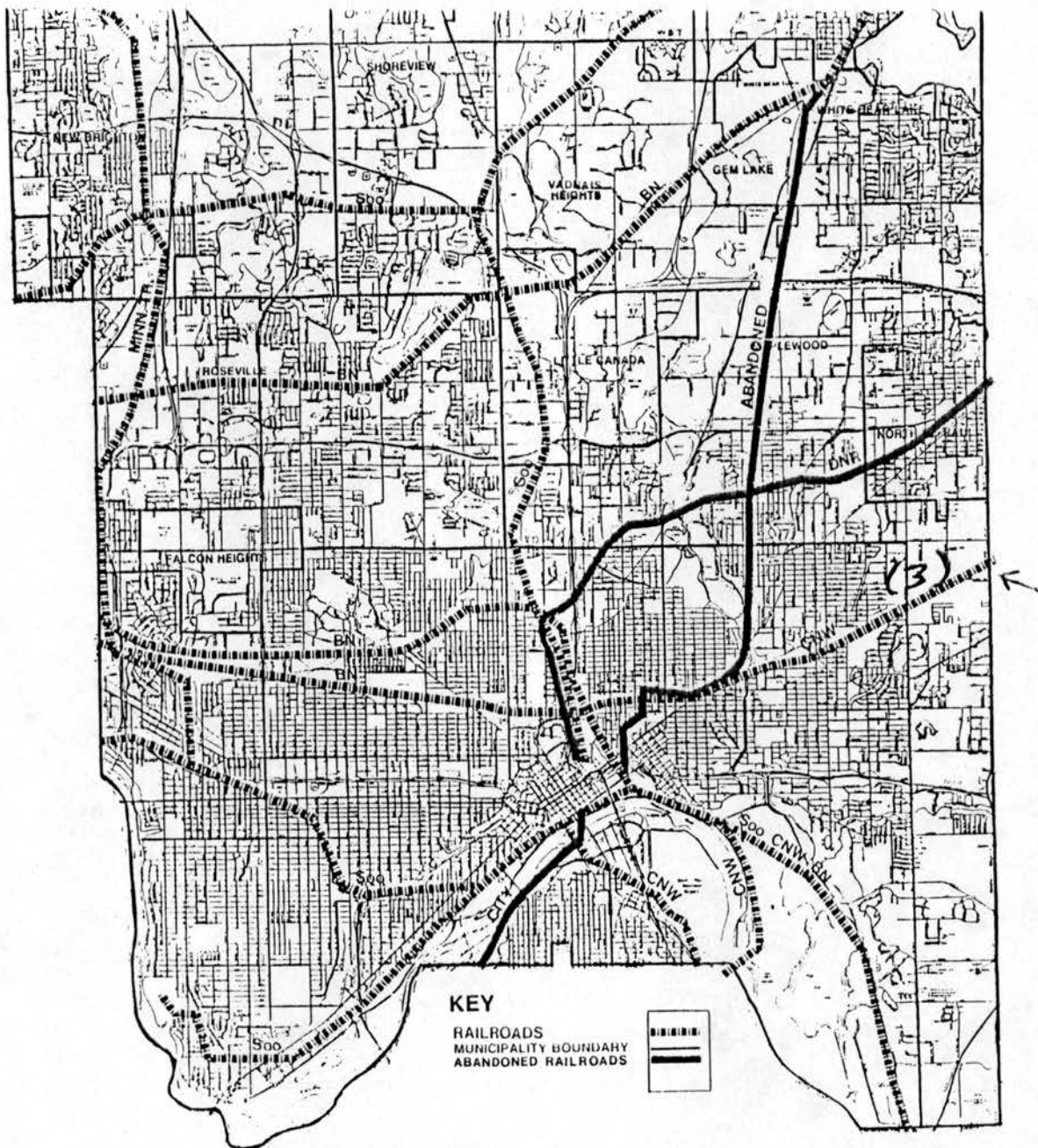
- 1) Liability - If a train derails, it could block LRT operations.
- 2) Maintenance - Railroads would anticipate that maintenance costs would be shared.
- 3) Priorities - Who would have priority use of the tracks.
- 4) LRT would most likely be required to operate under federal rules and regulations if operating on tracks owned by the railroads; LRT could be slowed waiting for a main track to clear.

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Memo re: Update on Ramsey County Rail Property
January 12, 1988
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- 5) Operating along rights-of-way - Most railroad rights-of-way are 100 feet wide, 50 feet from the center of the track. Some areas are narrower and some are wider. The tracks that are most narrow are the ones which parallel Shepard Road and the new 35E. Some bridge crossings are only 50 feet from the center of the track, which could make it difficult to operate LRT in the railroad rights-of-way.

PTO/cam

Attachments



RAMSEY COUNTY

REQUEST FOR BOARD ACTION

3

Please note: This list in the documentation may not be complete as we are still awaiting responses from the councils, etc.

Date / Time
Received By

Comments / Recommendation

Documentation certified complete for:

Date _____
Date _____
1/8/88
Date _____

APPOINTEES TO CORRIDOR TASK FORCE - MIDWAY CORRIDOR

	<u>Mailing Address</u>
Ken Holdeman District 12 Community Council	955 Cromwell St. Paul, MN 55114
Clark Armstead Thomas/Dale District 7 Planning Council	The Clark Group 417 University Avenue St. Paul, MN 55103
Michael Casey Snelling/Hamline Community Council	1526 Selby Avenue St. Paul, MN 55104
Ray Mordorski Payne/Phalen District Five Planning Council	1150 DeSoto Street St. Paul, MN 55101
Greg Crawford District 8 Community Council	667 Laurel Avenue St. Paul, MN 55104
Jim Kowalski Midway Civic & Commerce Assn.	Lexington Country Store 451 North Lexington Parkway St. Paul, MN 55104
Jerol Fleck (Alternate) Midway Civic & Commerce Assn.	ABF Industries Inc. 2304 University Avenue St. Paul, MN 55114
Maggie Schwichtenberg District 9 Community Council	314 Ryan Avenue St. Paul, MN 55102
Laurie Rockne Summit-Hill Association	
Triesta Brown Midway Coalition, District 11	
Stephen Grochala Citizens Advisory Committee	1994 Summit Avenue St. Paul, MN 55105
Nancy Ann Tracy Citizens Advisory Committee	934 Portland Avenue St. Paul, MN 55104
Robert J. Kren Citizens Advisory Committee	1329 St. Paul Ave. St. Paul, MN 55116
John M. Sheehan Citizens Advisory Committee	1097 W. Minnehaha Avenue St. Paul, MN 55104
Ignatius Theisen Citizens Advisory Committee	1108 Farrington Ave. St. Paul, MN 55117

APPOINTEES TO CORRIDOR TASK FORCE - MIDWAY CORRIDOR (continued)

	<u>Mailing Address</u>
Marc J. Mandersheid Citizens Advisory Committee	Doherty, Rumble, Butler 2800 MN World Trade Center St. Paul, MN 55101
Michael Hefferon General Manager, State Fair	Minnesota State Fair Como Station St. Paul, MN 55108

DRAFT

January 12, 1988

Dear Midway Corridor Task Force Member:

On January 12, 1988, you were appointed to the Midway Corridor Task Force by the Ramsey County Regional Railroad Authority. We appreciate your interest in serving on this committee which will consider alignments for light rail transit in the Midway Corridor between Downtown St. Paul and Minneapolis.

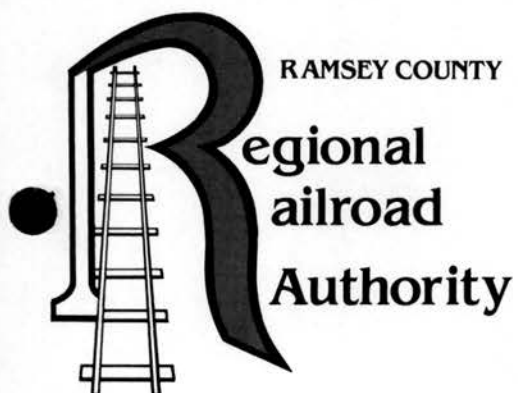
The first meeting of the Midway Corridor Task Force will be on Thursday, January 21, at 7:00 p.m. Subsequent meetings are tentatively scheduled for January 28, February 3, February 10 and February 25, also at 7:00 p.m. Meetings will be held in the Community Conference Room located off the lobby at Midway Hospital, 1700 University Avenue. Parking is available in the hospital's lot or ramp. Bus service is available on University Avenue, Route 16.

Please contact Kathryn DeSpiegelaere, 484-9104, if you are unable to attend the meeting.

Very truly yours,

John T. Finley, Chairman
Ramsey County Regional Railroad Authority

JTF/clm



John T. Finley, Chairman

District 3

Diane Ahrens

District 4

Ruby Hunt

District 5

Duane W. McCarty

District 1

Hal Norgard

District 7

Donald E. Salverda

District 2

Warren W. Schaber

District 6

AGENDA

Room 316 Courthouse
15 W. Kellogg Blvd.
St. Paul, MN 55102
Phone 298-4145

RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY

Tuesday, January 26, 1988

11:00 A.M. - Conference Room of 1316

1. Minutes of January 12, 1988 meeting.
2. Chairman's Comments
3. Update - Railroad Information
4. Coordination of information between Midway Corridor Task Force, Citizens Advisory Committee and Regional Railroad Authority.
 - .. Transit philosophy alternatives
 - .. Alignment alternatives
 - .. Financing alternatives
5. Payroll Tax Information
6. Appointments to Midway Corridor Task Force.
7. Quarterly Report of Payments-October-December, 1987.
8. Approve budget transfer \$3,000 from Contingent Appropriations.

MINUTES

RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY

MEETING

JANUARY 12, 1988

The meeting of the Board of the Ramsey County Regional Railroad Authority was held on Tuesday, January 12, 1988, at 11:05 A.M. in the Conference Room of Room 316 in the Court House. Chairman Finley called the meeting to order.

MEMBERS PRESENT:

Chairman John Finley
Commissioner Warren Schaber
Commissioner Duane McCarty
Commissioner Ruby Hunt
Commissioner Hal Norgard
Commissioner Donald Salverda (entered during
Item 2)

MEMBERS ABSENT:

Commissioner Diane Ahrens

1. Minutes - of the Ramsey County Regional Railroad Authority Board Meetings of: A. November 23, 1987, B. December 7, 1987.

Commissioner Hunt moved the following recommendation, seconded by Commissioner McCarty.

The Ramsey County Regional Railroad Authority Board approves the minutes of the Meetings of November 23, 1987 and December 7, 1987, as written.

Roll Call: Ayes - 5, Nays - 0
Motion carried.

2. Chairman's Comments

Chairman Finley wished to bring the Board up to date as to what has been going on. He gave a presentation at the request of the Midway Commercial Club last week, as to where we were regarding these three corridors, as they have a interest because of University and Snelling area. Last Friday there was a seminar put on on Light Rail Transit at the Marquette Inn, and of which he was a panelist, along with John Derus, Financial people from Hennepin County. Also the same day there was an LRT Advisory Council but this was cancelled by the Metropolitan Council, we along with Hennepin County were to give an update on where we were in our planning.

Many of the Commissioners were at the Light Rail Transit Meeting at the Marquette, to hear his presentation as to where we are at. Also, Chairman Finley had a

meeting with Elliott Perovich and his staff, and the BRW was selected by the Transit Board as consultant. They had set up a screening committee, on which Kathy DeSpiegelaere was our representative, for the selection of the consultant.

Chairman Finley said one of the things he wanted to mention is now, that we are going to be looking at things now, and that we are on a fast track. The reason for the fast track is the legislation, which called for Hennepin County to have their plan between now and the end of the short session. This means if Hennepin is to have a comprehensive plan, we have to be sure that certain determinations have to be made. We do not want all the determinations for a light rail system to take place in Hennepin County for a possible metropolitan system. He has cautioned to let everyone know that he is speaking for our Board that regardless of what information is received, and we are willing to gather it on a fast track, the decision as to where a corridor is going to be located is not going to be an easy decision, or a hasty decision, by this Board, regardless of how fast the information gets to us. He has advised the Legislature and others that there are some members of this Board that are not even sold on LRT, much less deciding where a corridor is going to be.

Chairman Finley has been trying to represent the interests of each as much as possible, and share the concerns of the individual members of the Board, but we have all worked together long enough to know that we are not going to get pushed into something merely because of legislation affecting another county. He does think it is okay to proceed with the gathering of the information on a fast track, but so that the Board does not have any misunderstanding that he is out promoting LRT for a quick decision, he is not. He has tried to make that clear.

Commissioner Hunt has a sense that some of the legislators are concerned about speed that is taking place, and she is wondering what the outlook would be on the Legislature not making that requirement, and not forcing the decision during this session. Sometime this Board may want to take the position that there should be additional time available to make the necessary comfortable decisions.

Chairman Finley said we are not really required to report back to the Legislature, but he had the feeling the Legislature was interested in Ramsey County getting up to speed. He does not feel that our Delegation is forcing us into a decision, but they did want us to get moving. When we get this study done, we may have additional information that we need to make decisions.

Commissioner Schaber agreed we may be in somewhat of a box because of the time restraints put on Hennepin County, it would be very nice if they could be lifted so that all the other players in the Metropolitan Counties can get up to speed. He feels this is driving our decision.

Chairman Finley does agree that it is driving our decision, but as long as we are in the study stage, we can wade through it in an orderly manner. We have had a lot of some very positive things in the news media regarding light rail, and he tried to again caution them that we are going to be moving slowly.

BRW was selected to do the Midway Corridor Study by the Regional Transit Board, and Dick Wolsfeld is the project director to do the planning analysis of the Midway Corridor, and Chairman Finley introduced him to the Board, and asked if he had anything he would like to say.

Mr. Wolsfeld addressed the Board, the BRW is based in the Twin Cities, and has 210 employees here, they have offices in Denver and in Phoenix, total of 200 people. His firm has a long history involvement in transit planning in the Twin Cities, but also in other cities. They started with the Skyride transit plan in the Hiawatha Corridor for downtown Minneapolis, working with LRT, and recently they are working for Hennepin County to develop this plan and if there is any legislation needed, they would like to get it done in February.

The role of the consultant on this project, transit philosophy, and the time schedule, and the relationship to Hennepin County in terms of some technical things are some of the things he would like to talk about. There are three roles for the consultant, you hire them to make a specific recommendation on an issue, and then to support that recommendation. The other alternative is you have Advisory Committees making decisions, and the consultant's role is to help the Advisory Committee to make a good decision. The third one is the consultant does an analysis, and they select as preferred alternative or have some findings which are then used by the Advisory Committees in making some decisions. Mr. Wolsfeld said he wanted to check with Ramsey County to see if this role is consistent with their thinking.

Chairman Finley feels the Board would like a full analysis, not a concrete recommendation, we want to keep in mind that we have concerns that may not be concerns dealing directly with the route, such as the concern as to whether should be light rail at all, what the developmental possibilities along the light rail route if it is preferred, how is it going to be financed, those types of things, and what are the political ramifications. It is consistent that we want the analysis based upon the technical data, but make it clear that we will be the ones making the decisions, for the ultimate decision.

Mr. Wolsfeld said the next thing in terms of transit philosophy, one of the issues that Hennepin County and all seven of their Advisory Committees have is what is the role you want light rail transit to play, one of the benefits of light rail transit is the extremely flexible technology, it can almost operate as a commuter railroad with fairly long station spacing, it can go 55 miles an hour, or you can have stops every quarter mile almost duplicating bus service, you may have higher speeds than a bus system. The issue of transit philosophy as to what you want the system to do becomes a very important alternative.

Chairman Finley said one of the reasons it was decided to have a study, on University, if we are going to have movement, exclusive right of way, with shorter stops on every block, there should be an alternative as University Avenue pretty much calls for every block stop, as it is a commercial type strip of property. Preferably there should be stops, but not as frequent as a bus, light rail transit should be where development could occur, and there should be some private as well as public partnership for development.

Commissioner McCarty is concerned about the extension of this study, and Chairman Finley believes that it is that MTC should be involved, as they may be operating entity if there ever is light rail. This should give us enough information to consider each option. Mr. Wolsfeld said the study will be a preferred alignment, identification of station locations, financial plan, and relationship to surface or feeder busses.

Mr. Wolsfeld explained that the February 21st date, Commissioner Derus had said he wanted his study finished by February 21st, but Mr. Wolsfeld thinks he meant that as the date the Legislature could consider this, as they open their session February 9th. Mr. Derus would like to have the work completed so that they can report to the Legislature as to where they are, and if they need any additional legislation, because of the financial plan, the need to involve private sector for any contracting methods, it would be better to ask this session, rather than to have to wait a year. Even though the Legislature gave Hennepin until July 1st, 1988, they would like to have it completed now should they have to go to Legislature.

Hennepin County Commissioners share the same concerns that Ramsey County does about making good decisions, and they have appointed seven Advisory Committees for each of the corridors, as well as Downtown, and they have not put any pressure on any of the Advisory Committees to complete their work, three are done, four are not completed with their work. He does not know if he will make the February 1st date at this time. The ability of the Advisory Committees to make good decisions is driving the time schedule. Ramsey County's time schedule was defined to complete at the same time as Hennepin County's schedule for legislative purposes.

Mr. Wolsfeld said the last things are the technical things that have gone on in Hennepin that have system wide implications, that may have some direction, and one is that they have developed a System Standards which talk about what the technology is, what a station is, how they are going to handle personal security, how they are going to handle elderly and handicapped accessibility which has become a very difficult and complex issue, and there should be some input from Ramsey County on this. They have also defined alternative implementation methods, turnkey, super turnkey where private sector would like to have significant roles in the final decisions on construction, operation, and the financing of the system. This discussion is going on right now, and they have not reached a conclusion. Also, if there is a physical relationship between the University and Midway Corridor, versus the corridor in Ramsey County. The work to date

on the University Connection is that it stops at the East Bank of the University of Minnesota, so all of the alternatives, railroad lines, University Avenue, so they are not in a position where Hennepin County has gone to the County line, and stopped, all of the alternatives east are open.

Chairman Finley said that Hennepin County has given a commitment that they were not going to come to the top of the hill, being that we have essentially the priority corridor in Ramsey County, that they will adjust their system to meet our system as to which alignment we end up choosing, so they have held back. They have given Chairman Finley a commitment that the decisions are not going to be made unless Ramsey County has agreed.

Commissioner McCarty discussed Hennepin County's recommendation that the connected length be underground, and asked Mr. Wolsfeld about this. Mr. Wolsfeld explained the Advisory Committee in the University of Minnesota area was strongly represented by the neighborhood that surrounds the campus, and they had one objective to keep the traffic away so it was not diverted into the neighborhood. To put it under ground is more costly to the University because the University has so many underground activities. The Committee said they would accept a half-grade alternative if there was a bypass to build up to the railroad right of way. The tunnel if it were to surface would be probably in the vicinity of where Washington Avenue and University Avenue split. Commissioner McCarty had felt that the subway recommendation was favored.

Chairman Finley thanked Mr. Wolsfeld for the information provided.

3. Appointments to Corridor Task Force - Midway Corridor

Chairman Finley said he had sent a letter to all of affected Community Councils and the business community that we are aware of who would have an interest in the Midway Corridor, and because of the fast track, these names have been coming in one at a time. He asked if everyone has the corrected list of candidates dated January 11th, and they had.

Chairman Finley pointed out that the Citizens Advisory Committee members who represent the three Commissioner Districts have been added to this Task Force, as well as Mike Hefferon from the State Board who has an interest in this.

Commissioner Hunt asked about representation from the Downtown Area. Chairman Finley has not heard from these people to date, however, just as soon as the names are received, these people will be added.

Commissioner Salverda moved the following recommendation, seconded by Commissioner Hunt.

The Ramsey County Regional Railroad Authority appoints the following persons to the Midway Corridor Task Force to study the implication on the private sector, public, and commercial areas if Light Rail Transit is to be developed along University Avenue, or one of the alternate routes, to serve the Downtown Area, State Capitol, University of Minnesota:

Ken Holdeman	District 12 Community Council
Clark Armstead	Thomas/Dale District 7 Planning Council
Michael Casey	Snelling/Hamline Community Council
Ray Mordorski	Payne/Phalen District 5 Planning Council
Greg Crawford	District 8 Community Council
James Kowalski	Midway Civic & Commerce Association
Jerol Fleck (Alternate	Midway Civic & Commerce Association
Maggie Schwichtenberg	District 9 Community Council
Laurie Rockne	Summit-Hill Association
Triesta Brown	Midway Coalition District 11
Stephen Grochala	Citizens Advisory Committee
Nancy Ann Tracy	Citizens Advisory Committee
Robert J. Kren	Citizens Advisory Committee
John M. Sheehan	Citizens Advisory Committee
Ignatius Theisen	Citizens Advisory Committee
Marc J. Manderscheid	Citizens Advisory Committee
Michael Hefferon	Minnesota State Fair

Schedule of meetings will be sent the appointees, and Task Force recommendations will be forwarded to the Citizens Advisory Committee for further consideration prior to submission to the Regional Railroad Authority Board.

Roll Call; Ayes - 6, Nays - 0
Motion adopted.

4. Schedule of Midway Corridor Activities

Chairman Finley suggested, as this Task Force is going to be on a fast track, that the Board today appoint a particular Chairman prior to the first meeting, that Clark Armstead who was born and raised in the area, and is in business on University Avenue be appointed a Chair person, it would be better for a Citizen to be Chairman.

Commissioner Schaber suggested that if the appointment is made that it will be the Acting Chairperson.

Commissioner Salverda suggested that Mike Hefferon would be an excellent person to be Chair, however, Chairman Finley had considered this, but because of the State Fair, there may be concern about interest in a particular area.

Commissioner Hunt moved the following recommendation, seconded by Commissioner Schaber.

The Ramsey County Regional Railroad Authority appoints Clark Armstead as Temporary (Acting) Chair of the Midway Corridor Task Force appointed to study the alternatives of light rail transit along University Avenue and the alternate routes.

Roll Call: Ayes - 6, Nays - 0
Motion adopted.

Chairman Finley discussed the short timetable for the Task Force and the Citizens Advisory Committee. What has been stated publicly is we are going to set this time table but if we do not reach it, we do not reach a goal. If they are not comfortable at their time for recommendations or preference, it will be fine.

One of the things Chairman Finley called attention to was the listing on this schedule of a Ramsey County Board Meeting with the Regional Transit Board, to give us an opportunity to meet. He asked for suggestions as to whether this Board should meet as a whole, or select a Committee of this Board to meet.

Commissioner Salverda suggested that the full Board meet with the RTB, so that the members get to know the others who are involved in this project.

Chairman Finley said the first meeting with the RTB would be to consider what the consultant has put together at that point, and the second meeting, would be when the consultant has completed his work. Both of these will be informational meetings.

Commissioner Hunt suggested that these joint meetings be considered "tentative" .

Kathy DeSpiegelaere that these meetings are merely for an informational update, it would not be a meeting where you are asked to vote or make decisions.

Commissioner McCarty moved the following recommendation, seconded by Ruby Hunt.

The Ramsey County Regional Railroad Authority approves the meeting schedule of the Corridor Task Force and Citizens Advisory Committee as submitted; and also that tentative Joint Meeting with the Regional Transit Board and the Ramsey County Regional Railroad be set by a calling of the Chair for an informational update on the study being conducted on the Midway Corridor for implementation of light rail or alternatives.

Roll Call: Ayes - 6, Nays - 0
Motion adopted.

5. Communication of information on Midway Corridor LRT Study

Chairman Finley is concerned that a great deal of information has been flowing through him, asking for information, and now that we are getting into specifics. He does not know how much information each Board member wants to receive. Do they wish to have a memo, verbal communication, or how Kathy DeSpiegelaere should furnish this to you, or should we wait until we get further into the study.

Commissioner Schaber feels that a memo would suffice, to do it verbally would require too much time, the way we are structured now we will be meeting every other week, so that will help with the flow of information as well.

Commissioner McCarty feels that we do not need to burden staff with additional work so that a midway update or something like that should be sufficient as far as he is concerned.

Chairman Finley commented that Kathy DeSpiegelaere has almost a full time job with this project, It is unbelievable the amount of enthusiasm that is out there, and the questions the people have, and very frankly, we do not have the technical expertise to answer a lot of questions that are being raised.

Hennepin County has set up an elaborate system, especially financial system, so it is Chairman Finley's suggestion that we do not start looking at bond consultants and all that as to whatever method there is to financing, construction, acquisition, or operations, it is going to be the same way, whether it is Hennepin, Ramsey or Washington. He feels that we should be able to read over Hennepin County's suggested plans, and gain very valuable information.

Chairman Finley did talk to John Jurgens regarding Washington County, and he has made mention that from Ramsey County's standpoint, Washington County is really the growth area and that a comprehensive plan would mean that Washington County would be as integrally involved in our long range overall plan as Hennepin County, probably more so because the only way we are related to Hennepin County is the downtown and Midway Corridor area. A lot of the growth is outside of our County, to the East. Mr. Jurgens said they have an interest in the one abandoned line. Chairman Finley feels that this is a relationship that we should nurture, especially with the Metro-East partnership.

6. Update on meeting with railroads.

Pat O'Malley distributed a memorandum to the Board dated January 12, 1988, an update on Ramsey County Railroad Property.

Chicago Northwestern has indicated a willingness to share some of its track usage for potential light rail transit use, and he pointed this out on the map which was attached to his memorandum, one line runs from St. Paul to Bayport which is identified as #3. Southerly corridor which runs along Shephard road, they are downsizing the tracks, from three to two. They are not certain about sharing tracks with light rail transit, they would like some information, time tables, amount of traffic. etc.

Commissioner Schaber suggested that for the next meeting, we could get a big map, as this is very difficult to read.

Mr. O'Malley discussed Soo Line tracks, Amtrak runs pretty much on Soo Line. They are operating on 30 to 40 milers per hour, and freight trains are on restricted speed in the city. They have operating rights and rules restricting speed in the area, these are issues we can discuss with them.

Another issue was brought up as to whether there would be any potential to operate outside the right of way, or existing track, the railroads say that is possible, but they have some bridge crossings that may be difficult to operate outside, off the existing track, but within their right of way.

Another issue is that LRT would most likely be required to operate under federal rules and regulations if operating on tracks owned by the railroads, LRT could be slowed waiting for a main track to clear. Who would have priority use of the tracks.

Chairman Finley said there is a meeting scheduled with the railroads on January 13th, and Mr. O'Malley is unable to attend, so he asked Miss DeSpiegelaere if she will be able to attend.

Chairman Finley suggested that we start finding out from the railroads exactly how wide their rights of way are, whether they have a 100 ft. right of way, how much would they need legally, where there bridges are that they are concerned about. He suggested that we get this information, for the Midway Corridor as well as all corridors.

We should have an overlay on the large map that we have so that it would give a clear picture of the lines we are talking about.

Commissioner Salverda commended Chairman Finley for his sharing this information, and the presentations he has been giving to all these interested groups.

There being no further matters to come before the Board Chairman Finley declared the meeting adjourned.

RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY

REQUEST FOR BOARD ACTION

2

Chairman Finley _____ Originating Department J.T.Finley _____ 1/20/88 Authorized Signature Date	Board Action Requested Chairman's Comments
Request Justification	

Budgeting and Accounting _____

County Attorney _____

Risk Manager _____

Data Processing _____

Previous Action taken on Request _____

Date / Time
Received By

Comments / Recommendation

Documentation certified complete for:

Committee / Meeting Date _____

Committee / Meeting Date
January 26, 1988

Board Date _____

Signature _____

Signature _____

Signature _____

Date _____

Date
1/20/88

Date _____

RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY

REQUEST FOR BOARD ACTION

3

<u>Chairman Finley</u> Originating Department <u>J. T. Finley</u> Authorized Signature	Board Action Requested UPDATE ON RAILROAD INFORMATION <u>1/20/88</u> Date
Request Justification	

<u>Budgeting and Accounting</u> <u>County Attorney</u> <u>Risk Manager</u> <u>Data Processing</u> <u>Previous Action taken on Request</u>	Date / Time Received By
--	---------------------------------------

Comments / Recommendation

Documentation certified complete for:

<u>Committee / Meeting Date</u>	<u>Signature</u>	<u>Date</u>
<u>Committee / Meeting Date</u> January 26, 1988	<u>Signature</u> <i>J. Glendinning</i>	<u>Date</u> 1/20/88
<u>Board Date</u>	<u>Signature</u>	<u>Date</u>

RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY

REQUEST FOR BOARD ACTION

4

Ramsey County Public Works

Originating Department

Kathy DeSpiegelaere (S)

Authorized Signature

1/20/88

Date

Board Action Requested

Coordination of information between Midway
Corridor Task Force, Citizens Advisory
Committee and Regional Railroad Authority

Request Justification

See attached memorandum from Kathryn DeSpiegelaere 1/20/88
with information on Transit Philosophy Alternatives, Alignment
Alternatives and Financing Alternatives.

Budgeting and Accounting

County Attorney

Risk Manager

Data Processing

Previous Action taken on Request

Date / Time

Received By

Comments / Recommendation

Documentation certified complete for:

Committee / Meeting Date

Signature

Date

Committee / Meeting Date
January 26, 1988

Signature

Date

Board Date

Signature

Date

J L. Blendenburg

1/20/88

MEMORANDUM

To: Ramsey County Regional Railroad Authority Commissioners
Executive Director Terry Schutten

From: Kathryn DeSpiegelaere *KD*

Subject: Midway Corridor Light Rail Transit Study - Coordination of Information

Date: January 20, 1988

The information attached is being presented on January 19 and January 21 to the Citizens Advisory Committee and Midway Corridor Task Force. The material was presented for information purposes and no action was requested at this time of the two groups. The information they received was:

1. **Universe of alternatives** (Attachment 1)
The alignments proposed for study for light rail transit (LRT) include two Burlington Northern railroad alignments north of Pierce Butler Route, University Avenue, I-94, Marshall Avenue and the Soo Line Railroad along Short Line Road. Downtown St. Paul alignments are also proposed for study.
2. **Screening criteria** (Attachment 2)
Factors which are proposed to be considered in eliminating some alignment alternatives from detailed consideration are indicated.
3. **Transit philosophy** (Attachment 3)
Criteria which may be used to define some elements of the transit service desired are presented.
4. **Financial alternatives** (Attachment 4)
The Citizens Advisory Committee, but not the Midway Corridor Task Force, received information on financial alternatives. A review of this information, prepared by BRW, has been requested of Ramsey County's Budgeting and Accounting Office.

Recommendation:

For your information.

KD:smw

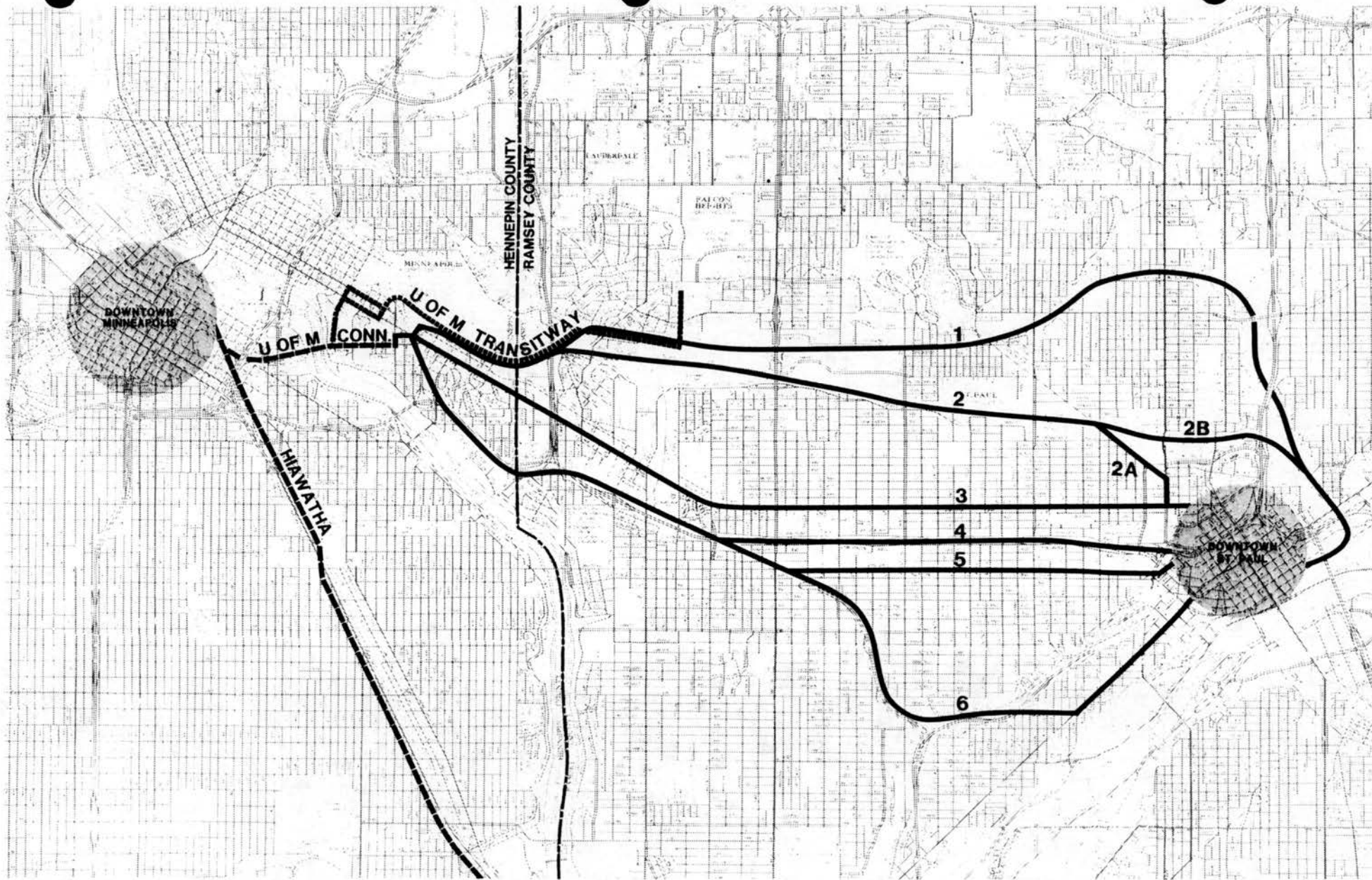
KD MEMO RRA MIDWAY CORRIDOR

MIDWAY CORRIDOR
LRT PLANNING ANALYSIS

BRW, INC.
JANUARY 18, 1988

UNIVERSE OF ALTERNATIVES

1. BN NORTHERN MAINLINE--ST. PAUL TO UNIVERSITY TRANSITWAY TO U OF M MINNEAPOLIS CAMPUS
2. BN SOUTHERN MAINLINE
 - A. COMO AVENUE TO BN ALIGNMENT TO U OF M MINNEAPOLIS CAMPUS
 - B. BN ALIGNMENT FROM DOWNTOWN ST. PAUL TO U OF M
3. UNIVERSITY AVENUE
4. I-94--JOHN IRELAND BOULEVARD TO FAIRVIEW AND THEN ON SOO LINE FROM FAIRVIEW TO U OF M
5. MARSHALL AVENUE--JOHN IRELAND BOULEVARD TO SNELLING AND THEN SOO LINE FROM SNELLING TO U OF M
6. SHORT LINE--WEST 7TH STREET TO COLBORNE AND THEN SOO LINE FROM COLBORNE TO U OF M



Midway Corridor LRT Planning Analysis

RTB
REGIONAL TRANSIT BOARD

0 1000' 1/2 Mile North

BRW

UNIVERSE OF ALTERNATIVES

1-2

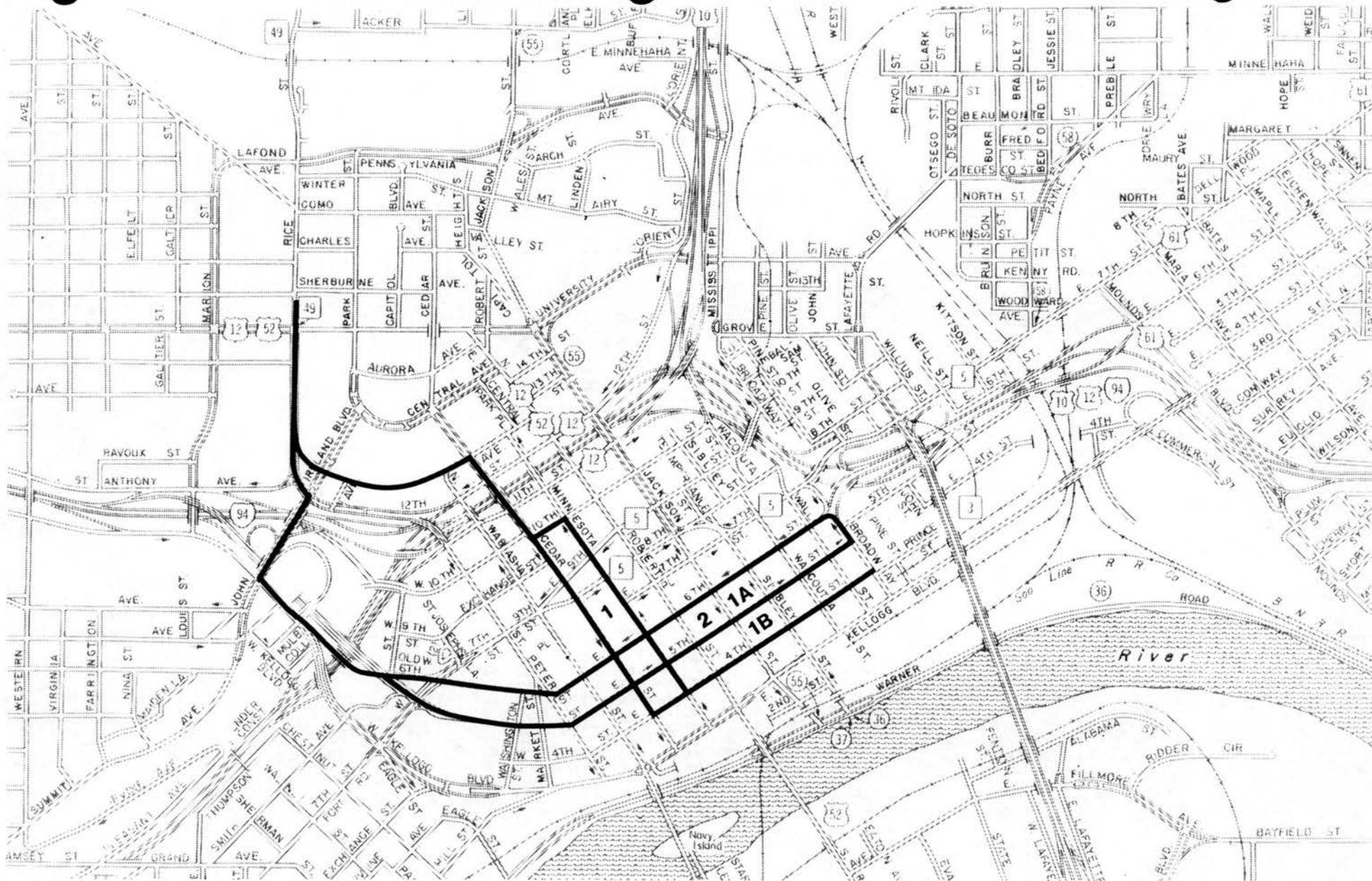
MIDWAY CORRIDOR
LRT PLANNING ANALYSIS

BRW, INC.
JANUARY 18, 1988

DOWNTOWN ST. PAUL ALTERNATIVES

1. CEDAR/MINNESOTA
 - A. CEDAR/MINNESOTA AND 4TH STREET SEMI-MALL
 - B. CEDAR/MINNESOTA AND 5TH & 6TH STREETS
2. 5TH STREET/6TH STREET ONE-WAY PAIR

*To be
revised*



Midway Corridor LRT Planning Analysis

RTB
REGIONAL TRANSIT BOARD

0 200 400 800 North

BRW

**DOWNTOWN ST. PAUL
ALTERNATIVES**

*to be
revised*

4-1

MIDWAY CORRIDOR
LRT PLANNING ANALYSIS

BRW, INC.
JANUARY 18, 1988

ALTERNATIVES CONSIDERED AND DROPPED

1. SOO LINE BETWEEN TH 280 AND HIAWATHA. BECAUSE IT DOES NOT DIRECTLY SERVE THE UNIVERSITY OF MINNESOTA AND THE SOO LINE HAS INDICATED THE ROW IS NOT AVAILABLE.
2. MARSHALL AVENUE/LAKE STREET BETWEEN SNELLING AVENUE AND HIAWATHA AVENUE. BECAUSE IT DOES NOT DIRECTLY SERVE THE UNIVERSITY OF MINNESOTA.
3. SUMMIT AVENUE BETWEEN THE SHORT LINE AND WEST 7TH STREET. BECAUSE OF ITS RESIDENTIAL AND HISTORICAL NATURE.
4. I-35E BETWEEN THE SHORT LINE AND DOWNTOWN ST. PAUL. BECAUSE OF THE LACK OF AVAILABLE ROW.

MIDWAY CORRIDOR
LRT PLANNING ANALYSIS

BRW, INC.
JANUARY 18, 1988

PROPOSED EVALUATION CRITERIA

ROW AVAILABILITY

CONNECTION TO OTHER LRT LINES

- CONNECTION TO DOWNTOWN ALIGNMENTS
- CONNECTION TO UNIVERSITY OF MINNESOTA

TRAFFIC IMPACTS

- IMPACT ON STREET/HIGHWAY CAPACITY
- IMPACT ON TRAFFIC CIRCULATION AND ACCESS
- IMPACT ON CURB USE (LOADING ZONES, TAXI STANDS, ON-STREET PARKING, ETC.)

DEVELOPMENT POTENTIAL

LRT RIDERSHIP

- TRAVEL TIME
- MARKET SIZE (POPULATION, EMPLOYMENT)
- PARK AND RIDE POTENTIAL
- FEEDER BUS POTENTIAL
- PROXIMITY TO MARKET (ORIGINS OR DESTINATIONS)
- RIDERSHIP DIFFERENCES

TRANSIT SYSTEM INTEGRITY

- IMPACT ON TRANSIT DEPENDENT
- IMPACT ON CURRENT TRANSIT USERS (SERVICE FREQUENCY, STATION SPACING)

LAND USE COMPATIBILITY

- IMPACT ON EXISTING BUSINESSES
- IMPACT ON EXISTING RESIDENTIAL NEIGHBORHOODS
- IMPACT ON CITY LAND USE GOALS

ENVIRONMENTAL IMPACTS

- AIR QUALITY
- NOISE
- VIBRATIONS
- AESTHETICS

CAPITAL AND OPERATING COSTS

CONSTRUCTION IMPACTS

MIDWAY CORRIDOR
LRT PLANNING ANALYSIS

BRW, Inc.
JANUARY 18, 1988

SCREEN I CRITERIA

- o ROW AVAILABILITY
- o ROADWAY CAPACITY AVAILABILITY
- o COMPATIBILITY WITH RESIDENTIAL LAND USES

MIDWAY CORRIDOR
LRT PLANNING ANALYSIS

BRW, INC.
JANUARY 18, 1988

SCREEN II CRITERIA

- 0 ROW AVAILABILITY
- 0 ROADWAY CAPACITY AVAILABILITY
- 0 COMPATIBILITY WITH RESIDENTIAL LAND USES
- 0 PROXIMITY TO MARKETS
- 0 GENERALIZED CAPITAL COST
- 0 DEVELOPMENT POTENTIAL
- 0 IMPACT ON TRANSIT DEPENDENTS

MIDWAY CORRIDOR
LRT PLANNING ANALYSIS

BRW, Inc.
JANUARY 18, 1988

PROPOSED EVALUATION CRITERIA FOR DOWNTOWN ST. PAUL ALTERNATIVES

PROXIMITY TO USERS

INTERFACE WITH CORRIDOR ALIGNMENT ALTERNATIVES

LAND USE IMPACTS

- IMPACT ON LAND USE GOALS
- IMPACT ON URBAN DESIGN AND PEDESTRIAN ENVIRONMENT

TRAFFIC IMPACTS

- IMPACT ON BUS OPERATIONS
- IMPACT ON STREET CAPACITY
- IMPACT ON CURB USE
- IMPACT ON ACCESS AND CIRCULATION

CAPITAL AND OPERATING COST

MIDWAY CORRIDOR
LRT PLANNING ANALYSIS

BRW, Inc.
JANUARY 19, 1988

ALTERNATIVE TRANSIT PHILOSOPHIES

TRANSIT PHILOSOPHY	STATION SPACING	TOP SPEED	OPERATING SPEED	PARALLEL BUS SERVICE	ROW ACCESS CONTROL
A	1+ MILES	55 MPH	32 MPH	SIGNIFICANT	FULLY CONTROLLED
B	1/2+ MILES	35-40 MPH	18 MPH	SOME	SEMI CONTROLLED
C	1/4+ MILES	30-35 MPH	12 MPH	NONE	PREFER- ENTIAL

Attachment 3

Midway Corridor
LRT Planning Analysis

DRAFT

BRW, Inc.
January 19, 1988

POTENTIAL PUBLIC REVENUE SOURCES
FOR LIGHT RAIL TRANSIT
IN RAMSEY COUNTY

1. Property Tax: Ramsey County Regional Railroad Authority
2. Property Tax: Metropolitan Transit Taxing District
3. Sales Tax (General)
4. Gasoline Tax
5. Payroll Tax
6. Hotel/Motel/Liquor Tax
7. Driver's License Fee
8. Motor Vehicle Registration Fee/Wheelage Tax
9. State Motor Vehicle Excise Tax
10. Cigarette Tax
11. Tax Increment Financing
12. Head Tax
13. Sales Tax on Parking
14. Urban Mass Transit Administration Section 3 Capital Grant

BASE DATE PREPARED BY: Miller & Schroeder Financial, Inc.
James R. Casserly
Mary E. Molzahn
Louis G. DeMars

SUPPLEMENTAL RAMSEY COUNTY
DATA PREPARED BY: BRW, Inc.
Includes: Chart II
Chart V

CHART I - A

PROPOSED \$50,000,000 DEBT SERVICE SCHEDULES FOR 20 YEARS

	a 7.0%			a 8.0%		
	Principal	Interest	Total	Principal	Interest	Total
Year 1	0.00	3,500,000.00	3,500,000.00	0.00	4,000,000.00	4,000,000.00
Year 2	0.00	3,500,000.00	3,500,000.00	0.00	4,000,000.00	4,000,000.00
Year 3	1,470,000.00	3,500,000.00	4,970,000.00	1,335,000.00	4,000,000.00	5,335,000.00
Year 4	1,575,000.00	3,397,100.00	4,972,100.00	1,440,000.00	3,893,200.00	5,333,200.00
Year 5	1,685,000.00	3,286,850.00	4,971,850.00	1,560,000.00	3,778,000.00	5,338,000.00
Year 6	1,800,000.00	3,168,900.00	4,968,900.00	1,680,000.00	3,653,200.00	5,333,200.00
Year 7	1,930,000.00	3,042,900.00	4,972,900.00	1,815,000.00	3,518,800.00	5,333,800.00
Year 8	2,065,000.00	2,907,800.00	4,972,800.00	1,960,000.00	3,373,600.00	5,333,600.00
Year 9	2,205,000.00	2,763,250.00	4,968,250.00	2,120,000.00	3,216,800.00	5,336,800.00
Year 10	2,360,000.00	2,608,900.00	4,968,900.00	2,290,000.00	3,047,200.00	5,337,200.00
Year 11	2,525,000.00	2,443,700.00	4,968,700.00	2,470,000.00	2,864,000.00	5,334,000.00
Year 12	2,705,000.00	2,266,950.00	4,971,950.00	2,670,000.00	2,666,400.00	5,336,400.00
Year 13	2,895,000.00	2,077,600.00	4,972,600.00	2,885,000.00	2,452,800.00	5,337,800.00
Year 14	3,095,000.00	1,874,950.00	4,969,950.00	3,115,000.00	2,222,000.00	5,337,000.00
Year 15	3,310,000.00	1,658,300.00	4,968,300.00	3,360,000.00	1,972,800.00	5,332,800.00
Year 16	3,545,000.00	1,426,600.00	4,971,600.00	3,630,000.00	1,704,000.00	5,334,000.00
Year 17	3,790,000.00	1,178,450.00	4,968,450.00	3,920,000.00	1,413,600.00	5,333,600.00
Year 18	4,060,000.00	913,150.00	4,973,150.00	4,235,000.00	1,100,000.00	5,335,000.00
Year 19	4,340,000.00	628,950.00	4,968,950.00	4,575,000.00	761,200.00	5,336,200.00
Year 20	4,645,000.00	325,150.00	4,970,150.00	4,940,000.00	395,200.00	5,335,200.00
	50,000,000.00	46,469,500.00	96,469,500.00	50,000,000.00	54,032,800.00	104,032,800.00

	a 9.0%			a 10.0%		
	Principal	Interest	Total	Principal	Interest	Total
Year 1	0.00	4,500,000.00	4,500,000.00	0.00	5,000,000.00	5,000,000.00
Year 2	0.00	4,500,000.00	4,500,000.00	0.00	5,000,000.00	5,000,000.00
Year 3	1,210,000.00	4,500,000.00	5,710,000.00	1,095,000.00	5,000,000.00	6,095,000.00
Year 4	1,320,000.00	4,391,100.00	5,711,100.00	1,205,000.00	4,890,500.00	6,095,500.00
Year 5	1,440,000.00	4,272,300.00	5,712,300.00	1,325,000.00	4,770,000.00	6,095,000.00
Year 6	1,570,000.00	4,142,700.00	5,712,700.00	1,460,000.00	4,637,500.00	6,097,500.00
Year 7	1,710,000.00	4,001,400.00	5,711,400.00	1,605,000.00	4,491,500.00	6,096,500.00
Year 8	1,860,000.00	3,847,500.00	5,707,500.00	1,765,000.00	4,331,000.00	6,096,000.00
Year 9	2,030,000.00	3,680,100.00	5,710,100.00	1,945,000.00	4,154,500.00	6,099,500.00
Year 10	2,215,000.00	3,497,400.00	5,712,400.00	2,135,000.00	3,960,000.00	6,095,000.00
Year 11	2,410,000.00	3,298,050.00	5,708,050.00	2,350,000.00	3,746,500.00	6,096,500.00
Year 12	2,630,000.00	3,081,150.00	5,711,150.00	2,585,000.00	3,511,500.00	6,096,500.00
Year 13	2,865,000.00	2,844,450.00	5,709,450.00	2,845,000.00	3,253,000.00	6,098,000.00
Year 14	3,125,000.00	2,586,600.00	5,711,600.00	3,130,000.00	2,968,500.00	6,098,500.00
Year 15	3,405,000.00	2,305,350.00	5,710,350.00	3,440,000.00	2,655,500.00	6,095,500.00
Year 16	3,710,000.00	1,998,900.00	5,708,900.00	3,785,000.00	2,311,500.00	6,096,500.00
Year 17	4,045,000.00	1,665,000.00	5,710,000.00	4,165,000.00	1,933,000.00	6,098,000.00
Year 18	4,410,000.00	1,300,950.00	5,710,950.00	4,580,000.00	1,516,500.00	6,096,500.00
Year 19	4,805,000.00	904,050.00	5,709,050.00	5,040,000.00	1,058,500.00	6,098,500.00
Year 20	5,240,000.00	471,600.00	5,711,600.00	5,545,000.00	554,500.00	6,099,500.00
	50,000,000.00	61,788,600.00	111,788,600.00	50,000,000.00	69,744,000.00	119,744,000.00

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PROPOSED \$50,000,000 DEBT SERVICE SCHEDULES FOR 10 YEARS

a 7.0%			a 8.0%		
Principal	Interest	Total	Principal	Interest	Total
.....					
Year 1	0.00	3,500,000.00	0.00	4,000,000.00	4,000,000.00
Year 2	0.00	3,500,000.00	0.00	4,000,000.00	4,000,000.00
Year 3	4,875,000.00	3,500,000.00	4,700,000.00	4,000,000.00	8,700,000.00
Year 4	5,215,000.00	3,158,750.00	5,080,000.00	3,624,000.00	8,704,000.00
Year 5	5,580,000.00	2,793,700.00	5,485,000.00	3,217,600.00	8,702,600.00
Year 6	5,970,000.00	2,403,100.00	5,920,000.00	2,778,800.00	8,698,800.00
Year 7	6,385,000.00	1,985,200.00	6,395,000.00	2,305,200.00	8,700,200.00
Year 8	6,835,000.00	1,538,250.00	6,905,000.00	1,793,600.00	8,698,600.00
Year 9	7,315,000.00	1,059,800.00	7,460,000.00	1,241,200.00	8,701,200.00
Year 10	7,825,000.00	547,750.00	8,055,000.00	644,400.00	8,699,400.00
.....					
50,000,000.00	23,986,550.00	73,986,550.00	50,000,000.00	27,604,800.00	77,604,800.00

a 9.0%			a 10.0%		
Principal	Interest	Total	Principal	Interest	Total
.....					
Year 1	0.00	4,500,000.00	0.00	5,000,000.00	5,000,000.00
Year 2	0.00	4,500,000.00	0.00	5,000,000.00	5,000,000.00
Year 3	4,535,000.00	4,500,000.00	4,375,000.00	5,000,000.00	9,375,000.00
Year 4	4,940,000.00	4,091,850.00	4,810,000.00	4,562,500.00	9,372,500.00
Year 5	5,385,000.00	3,647,250.00	5,290,000.00	4,081,500.00	9,371,500.00
Year 6	5,870,000.00	3,162,600.00	5,820,000.00	3,552,500.00	9,372,500.00
Year 7	6,400,000.00	2,634,300.00	6,400,000.00	2,970,500.00	9,370,500.00
Year 8	6,975,000.00	2,058,300.00	7,040,000.00	2,330,500.00	9,370,500.00
Year 9	7,605,000.00	1,430,550.00	7,745,000.00	1,626,500.00	9,371,500.00
Year 10	8,290,000.00	746,100.00	8,520,000.00	852,000.00	9,372,000.00
.....					
50,000,000.00	31,270,950.00	81,270,950.00	50,000,000.00	34,976,000.00	84,976,000.00

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CHART II
TAXABLE ASSESSED VALUATIONS

II-A HISTORICAL AND CURRENT

Tax Year Payable	Ramsey County Taxable Assessed Value	Amount Raised By 1 Mill Levy	Annual Percentage Increase
1976	1,437,282,589.00	1,437,282.59	
1977	1,537,371,387.00	1,537,371.39	6.96%
1978	1,565,817,042.00	1,565,817.04	1.85%
1979	1,653,184,126.00	1,653,184.13	5.58%
1980	1,925,944,849.00	1,925,944.85	16.50%
1981	2,450,275,966.00	2,450,275.97	27.22%
1982	2,798,831,798.00	2,798,831.80	14.23%
1983	3,060,588,453.00	3,060,588.45	9.35%
1984	3,197,727,657.00	3,197,727.66	4.48%
1985	3,220,409,041.00	3,220,409.04	0.71%
1986	3,231,346,722.00	3,231,346.72	0.34%
1987	3,283,594,890.00	3,283,594.89	1.62%
* 1988	3,400,000,000.00	3,400,000.00	3.55%
Average Annual Percentage Increase			7.70%

II-B PROJECTED @ 7.5% AVERAGE ANNUAL INCREASE

Tax Year Payable	Ramsey County Taxable Assessed Value	Amount Raised By 1 Mill Levy
* 1988	3,400,000,000.00	3,400,000.00
1989	3,655,000,000.00	3,655,000.00
1990	3,929,125,000.00	3,929,125.00
1991	4,223,809,375.00	4,223,809.38
1992	4,540,595,078.13	4,540,595.08
1993	4,881,139,708.98	4,881,139.71
1994	5,247,225,187.16	5,247,225.19
1995	5,640,767,076.20	5,640,767.08
1996	6,063,824,606.91	6,063,824.61
1997	6,518,611,452.43	6,518,611.45
1998	7,007,507,311.36	7,007,507.31
1999	7,533,070,359.71	7,533,070.36
2000	8,098,050,636.69	8,098,050.64
2001	8,705,404,434.44	8,705,404.43
2002	9,358,309,767.03	9,358,309.77
2003	10,060,182,999.55	10,060,183.00
2004	10,814,696,724.52	10,814,696.72
2005	11,625,798,978.86	11,625,798.98
2006	12,497,733,902.27	12,497,733.90
2007	13,435,063,944.94	13,435,063.94
TOTAL:	147,235,916,544.17	147,235,916.54

II-C PROJECTED @ 5.0% AVERAGE ANNUAL INCREASE

Tax Year Payable	Ramsey County Taxable Assessed Value	Amount Raised By 1 Mill Levy
* 1988	3,400,000,000.00	3,400,000.00
1989	3,570,000,000.00	3,570,000.00
1990	3,748,500,000.00	3,748,500.00
1991	3,935,925,000.00	3,935,925.00
1992	4,132,721,250.00	4,132,721.25
1993	4,339,357,312.50	4,339,357.31
1994	4,556,325,178.13	4,556,325.18
1995	4,784,141,437.03	4,784,141.44
1996	5,023,348,508.88	5,023,348.51
1997	5,274,515,934.33	5,274,515.93
1998	5,538,241,731.04	5,538,241.73
1999	5,815,153,817.60	5,815,153.82
2000	6,105,911,508.48	6,105,911.51
2001	6,411,207,083.90	6,411,207.08
2002	6,731,767,438.09	6,731,767.44
2003	7,068,355,810.00	7,068,355.81
2004	7,421,773,600.50	7,421,773.60
2005	7,792,862,280.52	7,792,862.28
2006	8,182,505,394.55	8,182,505.39
2007	8,591,630,664.28	8,591,630.66
TOTAL:	112,424,243,949.82	112,424,243.95

II-D PROJECTED @ 2.5% AVERAGE ANNUAL INCREASE

Tax Year Payable	Ramsey County Taxable Assessed Value	Amount Raised By 1 Mill Levy
* 1988	3,400,000,000.00	3,400,000.00
1989	3,485,000,000.00	3,485,000.00
1990	3,572,125,000.00	3,572,125.00
1991	3,661,428,125.00	3,661,428.12
1992	3,752,963,828.12	3,752,963.83
1993	3,846,787,923.83	3,846,787.92
1994	3,942,957,621.92	3,942,957.62
1995	4,041,531,562.47	4,041,531.56
1996	4,142,569,851.53	4,142,569.85
1997	4,246,134,097.82	4,246,134.10
1998	4,352,287,450.27	4,352,287.45
1999	4,461,094,636.52	4,461,094.64
2000	4,572,622,002.44	4,572,622.00
2001	4,686,937,552.50	4,686,937.55
2002	4,804,110,991.31	4,804,110.99
2003	4,924,213,766.09	4,924,213.77
2004	5,047,319,110.25	5,047,319.11
2005	5,173,502,088.00	5,173,502.09
2006	5,302,839,640.20	5,302,839.64
2007	5,435,410,631.21	5,435,410.63
TOTAL:	86,851,835,879.49	86,851,835.88

*Estimated Assessed Value

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CHART III: OTHER REVENUE SOURCES

2. TRANSIT TAXING DISTRICT

1987 Assessed Valuation upon which levy is based = \$24,405,367,109
 1 Mill raises \$25,502,231
 Statutory levy is 2 mills.

3. SALES TAX

The total amount collected for all Sales and Use Taxes in Minnesota for fiscal year ending June 30, 1987, was \$1,433,669,000.

A one percent (1%) Sales and Use Tax for the metropolitan area and Ramsey County in particular would have generated the following dollar amounts:

Entity	1987 Collection	One Percent
Seven County Metropolitan Area	\$874.6 Million	\$145.8 Million
Hennepin County	544.8 Million	90.8 Million
City of Minneapolis	329.8 Million	55.0 Million
Ramsey County	186.4 Million	31.1 Million
City of Saint Paul	129.0 Million	21.5 Million

The State of Minnesota Commissioner of Revenue's Office estimated that fiscal year 1988 will generate a net increase of two and one-half percent (2.5%) above fiscal 1987 and that fiscal year 1989 will generate four and seven-tenths percent (4.7%) over 1988. Those increases would indicate the following increases for Ramsey County:

Year	Estimated Collections	One Percent
1988	\$191.0 Million	\$31.9 Million
1989	200.0 Million	33.4 Million

Please note that a breakdown of the 1987 Sales and Use Tax Collections per entity was not available at this time and we have estimated percentages of the total amount each entity generates based on the 1986 figures.

4. GASOLINE TAX

GASOLINE EXCISE TAX - Minn. Stat. 296.02 subd. 1b (1986)

The current tax rate imposed on the sale of gasoline (and diesel fuel) is 17 cents per gallon. The tax currently generates approximately \$343 million dollars per year. This excise tax is not being used to fund transit projects within the State.

The total net amounts generated by this tax (after refunds) are as follows:

Fiscal 1983	\$277,767,775
Fiscal 1984	342,540,112
Fiscal 1985	354,605,048
Fiscal 1986	336,690,949
Fiscal 1987	353,869,412

Each one cent raises approximately the following amounts each year:

State	\$20.2 Million
Metropolitan Areas	10.1 Million
Hennepin County	5.5 Million
Ramsey County	2.7 Million

5. PAYROLL TAX

A one percent (1%) payroll or earnings tax would have generated the following amounts in calendar year 1986. These figures do not include the self-employed and other persons not covered under Standard Industrial Classification.

<u>County</u>	<u>1986 Wages</u>	<u>1% Tax</u>
Ramsey County	\$ 6.3 Billion	\$ 63 Million
Hennepin County	14.9 Billion	149 Million
Metropolitan Area	25.0 Billion	250 Million

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6. HOTEL/MOTEL/LIQUOR TAX
(AKA STADIUM TAX)

For the purpose of this study, as defined by the DOR, the Stadium Tax is a 1% piggyback tax levied by the City of Minneapolis and on-sale liquors (bar, restaurant or hotel) and hotel guest room rentals.

The following table presents the 1986 tax revenues. According to the United State Lodging Industry, 68.5 of every dollar spent for hotel/motel uses goes to guest room rental or liquor sales. The table shows the 1986 revenues of \$1,804,002 that a one percent (1%) tax generates.

County	1986 Hotel Gross Sales	X 68.5%	1% Tax
Anoka	\$ 1,107,587	\$ 758,697	\$ 7,587
Carver	1,097,009	751,451	7,515
Dakota	7,270,110	4,980,025	49,800
Hennepin	193,801,311	132,753,898	1,327,539
Ramsey	48,974,404	33,547,467	335,475
Scott	2,667,967	1,827,557	18,276
Washington	8,439,426	5,781,007	57,810
			<u>\$1,804,200</u>

7. DRIVER'S LICENSE FEE

During fiscal 1987 (July 1, 1986 to June 30, 1987), the Driver's License Fees generated \$8,580,300. No portion of this money could be dedicated to the transit assistance fund. However, beginning in fiscal 1988 (July 1, 1987 to June 30, 1988) one-third of the money generated by this fee will be dedicated to the transit assistance fund. The projected total revenues for fiscal 1988 are \$12,920,000.

(100%) \$12,920,200 Total Fees generated.	(33-1/3%) \$4,306,302 amount dedicated transit assist. fund.	(80% of the 33-1/3%) \$3,445,041 allocated to metrotransit projects
		(20% of the 33-1/3%) \$861,261 allocated to non-metro transit pro- jects.

A \$1.00 increase in the driver's license fee would raise each year approximately the following amounts:

State	\$800,000
Metropolitan Area	400,000
Hennepin County	200,000
Ramsey County	100,000

8. MOTOR VEHICLE REGISTRATION FEE/WHEELAGE TAX

For Fiscal Year 1987 fees in the amount of \$181,764,865 were collected statewide for licensing both automobile and small passenger trucks.

It is preliminarily estimated that each \$1.00 increase would raise approximately \$315,000 per year in Ramsey County.

9. MOTOR VEHICLE EXCISE TAX

Motor Vehicle Excise Tax (MVET) is an excise tax imposed on the purchase price of any motor vehicle purchased or acquired in or outside the State of Minnesota which is required to be registered. The tax rate is six percent (6%).

Total MVET collections and projections (in thousands) are as follows:

Fiscal 1983	\$123,903	
1984	179,190	
1985	197,213	
1986	207,769	
1987	225,617	
1988	232,100	(5% of this will be transferred)
1989	229,900	(5% of this will be transferred)

Each 1% raises approximately \$38,000,000 per year statewide. Assuming ratios of 50% for Metropolitan Area and 12% for Ramsey County, the revenues would be \$19 million and \$4.6 million respectively.

10. CIGARETTE TAX

Based on Fiscal 1987 Rates, the Cigarette Tax generated 77,242,004. One cent of the tax generates 3,358,348. A breakdown by county is not available.

In Fiscal 1987, the Cigarette Tax for a pack of 20 was 23 cents; for fiscal 1988, the tax is 38 cents. The State also collects 6 cents per pack for the Sales Tax.

CHART IV - A

4-9

PROJECTED TAX INCREMENT REVENUE
GENERATED BY \$1,000,000 OF NEW ASSESSED VALUATION

	With 0.0% Increase	With 2.5% Increase	With 5.0% Increase
Year 1	0.00	0.00	0.00
Year 2	0.00	0.00	0.00
Year 3	107,834.00	107,834.00	107,834.00
Year 4	107,834.00	110,529.85	113,225.70
Year 5	107,834.00	113,293.10	118,886.98
Year 6	107,834.00	116,125.42	124,831.33
Year 7	107,834.00	119,028.56	131,072.90
Year 8	107,834.00	122,004.27	137,626.55
Year 9	107,834.00	125,054.38	144,507.87
Year 10	107,834.00	128,180.74	151,733.27
Year 11	107,834.00	131,385.26	159,319.93
Year 12	107,834.00	134,669.89	167,285.93
Year 13	107,834.00	138,036.64	175,650.22
Year 14	107,834.00	141,487.55	184,432.73
Year 15	107,834.00	145,024.74	193,654.37
Year 16	107,834.00	148,650.36	203,337.09
Year 17	107,834.00	152,366.62	213,503.94
Year 18	107,834.00	156,175.78	224,179.14
Year 19	107,834.00	160,080.18	235,388.10
Year 20	107,834.00	164,082.18	247,157.50

Tax Increment Received:	1,941,012.00	2,414,009.53	3,033,627.57

Maximum Issue Supported:	900,000.00	1,060,000.00	1,250,000.00

Available For Project:	730,553.00	860,429.00	1,014,657.00

Bond Issuance Assumptions:

1. Capitalized Interest Period of 2 Years
2. Capitalized Interest Fund Net-Funded @ 5.5%
3. Bond Issuance Expenses/Discount @ 2.0%
4. Estimated Coupon Rate of 9.0%

Prepared For Planning Purposes Only By Miller & Schroeder Financial: 10-21-87

CHART IV - B

PROJECTED TAX INCREMENT REVENUE
GENERATED BY \$1,000,000 OF NEW ASSESSED VALUATION

	With 0.0% Increase	With 2.5% Increase	With 5.0% Increase
Year 1	0.00	0.00	0.00
Year 2	0.00	0.00	0.00
Year 3	107,834.00	107,834.00	107,834.00
Year 4	107,834.00	110,529.85	113,225.70
Year 5	107,834.00	113,293.10	118,886.98
Year 6	107,834.00	116,125.42	124,831.33
Year 7	107,834.00	119,028.56	131,072.90
Year 8	107,834.00	122,004.27	137,626.55
Year 9	107,834.00	125,054.38	144,507.87
Year 10	107,834.00	128,180.74	151,733.27
	-----	-----	-----
Tax Increment Received:	862,672.00	942,050.32	1,029,718.61
Maximum Issue Supported:	590,000.00	630,000.00	685,000.00
Available for Project:	489,950.00	523,166.00	568,840.00

Bond Issuance Assumptions:

1. Capitalized Interest Period of 2 Years
 2. Capitalized Interest Fund Net-Funded @ 5.5%
 3. Bond Issuance Expenses/Discount @ 2.0%
- Estimated Coupon Rate of 8.0%

Prepared For Planning Purposes Only By Miller & Schroeder Financial: 10-21-87

4-11

CHART V
PROJECTED RCRRRA REVENUE
GENERATED BY 1 MILL LEVY

	With 2.5% Increase @10.0% Rate	With 5.0% Increase @ 9.0% Rate	With 7.5% Increase @ 7.0% Rate
Year 1	3,400,000.00	3,400,000.00	3,400,000.00
Year 2	3,485,000.00	3,570,000.00	3,655,000.00
Year 3	3,572,125.00	3,748,500.00	3,929,125.00
Year 4	3,661,428.12	3,935,925.00	4,223,809.38
Year 5	3,752,963.83	4,132,721.25	4,540,595.08
Year 6	3,846,787.92	4,339,357.31	4,881,139.71
Year 7	3,942,957.62	4,556,325.18	5,247,225.19
Year 8	4,041,531.56	4,784,141.44	5,640,767.08
Year 9	4,142,569.85	5,023,348.51	6,063,824.61
Year 10	4,246,134.10	5,274,515.93	6,518,611.45
Year 11	4,352,287.45	5,538,241.73	7,007,507.31
Year 12	4,461,094.64	5,815,153.82	7,533,070.36
Year 13	4,572,622.00	6,105,911.51	8,098,050.64
Year 14	4,686,937.55	6,411,207.08	8,705,404.43
Year 15	4,804,110.99	6,731,767.44	9,358,309.77
Year 16	4,924,213.77	7,068,355.81	10,060,183.00
Year 17	5,047,319.11	7,421,773.60	10,814,696.72
Year 18	5,173,502.09	7,792,862.28	11,625,798.98
Year 19	5,302,839.64	8,182,505.39	12,497,733.90
Year 20	5,435,410.63	8,591,630.66	13,435,063.94

Total Revenue Received: 86,851,835.88 112,424,243.95 147,235,916.54

Maximum Issue Supported: 33,000,000.00 43,000,000.00 63,800,000.00

Available For Project: 32,340,000.00 42,140,000.00 62,524,000.00

Prepared For Planning Purposes Only By BRW, Inc. 01-19-88

RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY

REQUEST FOR BOARD ACTION

5

Ramsey County Public Works

Originating Department

Kathryn DeSpiegelaere 1/20/87
Authorized Signature Date

~~County Attorney Recommended~~

Information Item:

Payroll Tax Information

Request Justification

As requested at the November 9 Regional Railroad Authority meeting, information on a payroll tax has been prepared by Kathryn DeSpiegelaere.

Budgeting and Accounting

County Attorney

Risk Manager

Data Processing

Previous Action taken on Request

RECEIVED
1987 NOV 24 PM 3:57
RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY
COMMITTEES

Comments / Recommendation

Documentation certified complete for:

Committee / Meeting Date

Signature

Date

Committee / Meeting Date
January 26, 1988

Signature

Date

Board Date

Signature

Date



Ramsey County
DEPARTMENT OF PUBLIC WORKS

3377 North Rice Street
Saint Paul, Minnesota 55112
(612) 484-9104

Divisions of:
Engineering
Maintenance
Mobile Equipment
Environmental Services

MEMORANDUM

To: Ramsey County Regional Railroad Authority Commissioners
Executive Director Terry Schutten

From: Kathryn DeSpiegelaere *KD*

Subject: Payroll Tax Information

Date: November 19, 1987

At the Ramsey County Regional Railroad Authority meeting of November 9, Commissioner Schaber requested additional information on payroll tax such as that in use in Portland, Oregon.

I have obtained the following information:

- Portland has a payroll tax (.6 of 1%) levied on gross payroll within the transit area (Tri-Met) boundaries. This is the source of operating funds for transit services, including buses and LRT. The tax is paid directly by employers on a quarterly basis. It is levied in accordance with an ordinance passed by the transit district board of directors. The amount raised annually is \$48 million.
- The Denver area is implementing LRT. One source of funding for the capital costs is an employment head tax of \$2 per month per employee in the benefitted area.
- The Metropolitan Council Data Center has provided information on employment and place of residence of employees in Ramsey County. The data is from the 1980 census. The total number of workers in Ramsey County was 256,255. Of that number 95,493 (37%) resided outside Ramsey County.
- According to information supplied at the Hennepin County Forum on LRT Financing in October, wages in 1986 in Ramsey County were \$6.3 billion, not including self employed individuals.

Six tenths of one percent of \$6.3 billion, a tax rate equivalent to Portland's, would yield \$37.8 million annually within Ramsey County.

Recommendation:

For your information.

KD:m

RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY

REQUEST FOR BOARD ACTION

6

<u>Chairman John Finley</u>		Board Action Requested
Originating Department		APPOINTMENTS TO MIDWAY CORRIDOR TASK
<u>John T. Finley (S)</u>	<u>1/20/88</u>	FORCE
Authorized Signature	Date	

Request Justification

District 10 Community Council appointee - Bill Jones
 District 17 Community Council appointee - David Bradshaw

As these Councils did not have a meeting prior to our January 12th Board meeting, we were unable to include their representatives as members of the Midway Corridor Task Force until this meeting.

Budgeting and Accounting _____	Date / Time Received By
County Attorney _____	
Risk Manager _____	
Data Processing _____	
Previous Action taken on Request _____	

Comments / Recommendation

Documentation certified complete for:

Committee / Meeting Date	Signature	Date
Committee / Meeting Date	Signature	Date
January 26, 1988	<i>[Signature]</i>	1/20/88
Board Date	Signature	Date

ADDITIONAL APPOINTMENTS TO MIDWAY CORRIDOR TASK FORCE:

Bill Jones
District 10 Como Community Council

Mailing Address
1349 Midway Parkway
St. Paul, MN 55108
642-1307

David Bradshaw
District 17 Community Council

Exchange Street Partners
Suite 422, 17 West Exchange
St. Paul, MN 55102
292-9493

1/22/88

RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY

REQUEST FOR BOARD ACTION

7

<u>Budget & Accounting</u> Originating Department		Board Action Requested Quarterly Report of Payments October - December 1987
<u>J. Van Houdt</u> Authorized Signature	<u>1/19/88</u> Date	

Request Justification

Per RR Board Resolution October 5, 1987

See attached memo from J. Van Houdt dated 1/14/88 with report of payments and status of budget account.

<u>Budgeting and Accounting</u> <i>Ed Klauhtz</i> <u>1/21/88</u> <u>County Attorney</u> <u>Risk Manager</u> <u>Data Processing</u> <u>Previous Action taken on Request</u>		Date / Time Received By
--	--	--

Comments / Recommendation

Documentation certified complete for:

<u>Committee / Meeting Date</u> <u>Committee / Meeting Date</u> January 26, 1988 <u>Board Date</u>	<u>Signature</u> <i>J L Blendenning</i> <u>Signature</u>	<u>Date</u> <u>Date</u> 1/19/88 <u>Date</u>
---	--	--



Office of
BUDGETING AND ACCOUNTING

Room 36, Court House
St. Paul, Minnesota 55102
298-4196

TERRY SCHUTTEN
Executive Director

JAMES H. VAN HOUDT
Director - Budgeting & Accounting

MARLEN D. JOHNSON
Accounting Manager

VERNON H. WEHLAGE
Budget Manager

MEMORANDUM

DATE: January 14, 1988

TO: Terry Schutten, Executive Director

FROM: J VH James Van Houdt, Director - Budgeting & Accounting

SUBJECT: Ramsey County Regional Railroad Authority
Quarterly Report of Payments: October - December 1987

Ramsey County Regional Railroad Authority Resolution of October 5, 1987, authorized the Budget and Accounting Director to approve payment of bills for the Regional Railroad Authority with a limit for any single invoice not to exceed \$2,000 and report these disbursements to the Regional Railroad Authority and the condition of the Regional Railroad Authority's budget on a quarterly basis.

I am attaching a report of payments made from the Regional Railroad Authority budget for the period October through December 1987 and a copy of the budget as of December 31, 1987.

JVH:EG:ja/gcl
Attachments

14-Jan-88

REPORT OF PAYMENTS FROM RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY.

PERIOD OF REPORT:

October - December 1987

DATE OF PAYMENT	PAYMENT TO	AMOUNT	WARRANT NUMBER	PURPOSE OF PAYMENT
13-Oct-87	St Paul Pioneer Press Dispatch	1,395.36	382544	Publishing notice of intent to levy taxes in 1988.
13-Oct-87	Deruyter Nelson Publications, Inc	197.50	383123	Publishing notice of intent to levy taxes in 1988.
23-Oct-87	St Paul Legal Ledger	77.25	384764	Publishing notice of intent to levy taxes in 1988.
27-Oct-87	Thoele Printing, Inc	445.00	385455	Stationery and envelopes
10-Nov-87	Ramsey County	351.39	387703	Duplicating of Authority agenda, minutes, and background material. April to September, 1987.
20-Nov-87	Ramsey County	28.20	389085	Duplicating of Authority agenda, minutes, and background material. October, 1987.
11-Dec-87	Ramsey County	148.87	392299	Duplicating of Authority agenda, minutes, and background material. November, 1987.
15-Dec-87	Thoele Printing	31.20	393018	Stationery, 500 blank second sheets.
15-Dec-87	Postmaster, c/o Budgeting & Accounting	110.00	393182	Postage stamps.
18-Dec-87	Metropolitan Council Data Center	50.00	394341	Tabulation of the number of workers in Ramsey County that live outside the county, and the number that live in the county.
29-Dec-87	Ramsey County	1,561.02	395475	Transportation Planner services, 7/1/87-8/17/87.
29-Dec-87	Ramsey County	1,329.22	395475	Transportation Planner services, 8/18/87 - 9/30/87.
29-Dec-87	Ramsey County	523.46	395475	Budgeting & Accounting Services, 8/18/87 to 12/7/87.
Total Payments:		6,248.47		

1	RFC								
2	FUND NO. 591	RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY							
3									
4	APPROPRIATION NO.	ADJ. CURRENT APPROPRIATION	AMOUNT EXPENDED	UNPAID ENCUMBRANCES	BALANCE UNEXPENDED	BALANCE UNENCUMBERED	TRANSFER IN (TO)	TRANSFER OUT (FROM)	PCT EXPD YTD
5									
6									
7	59101	RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY							
8									
9	000000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
10	ENGINEERING SERVICE:								
11	020103	5,000.00	2,890.24	10,000.00	2,109.76	7,890.24CR	5,000.00	0.00	57.80
12	COUNTY ATTORNEY SERVICES?								
13	020174	5,000.00	0.00	5,000.00	5,000.00	0.00	5,000.00	0.00	
14	EXECUTIVE DIRECTOR-SERVICES:								
15	020176	5,000.00	0.00	3,200.00	5,000.00	1,800.00	5,000.00	0.00	
16	BUDGETING & ACCOUNTING SERVICES:								
17	020179	4,950.00	523.46	0.00	4,426.54	4,426.54	5,000.00	0.00	
18	DATA PROCESSING SERVICES-MTCE:								
19	020185	500.00	0.00	0.00	500.00	500.00	500.00	0.00	10.57
20	POSTAGE:								
21	020202	500.00	110.00	100.00	390.00	290.00	500.00	0.00	22.00
22	PUBLISHING MINUTES & NOTICES:								
23	020401	2,500.00	1,670.11	0.00	829.89	829.89	2,500.00	0.00	66.80
24	PRINTING & STATIONERY:								
25	020501	1,500.00	1,004.66	25.00	495.34	470.34	1,500.00	0.00	66.98
26	CONSULTING SERVICES EXPENSE:								
27	021107	50.00	50.00	0.00	0.00	0.00	50.00	0.00	100.00
28									
29									
30	TOTL 02	25,000.00	6,248.47	18,325.00	18,751.53	426.53	25,050.00	50.00	24.99
31									
32	ORG-TOT	25,000.00	6,248.47	18,325.00	18,751.53	426.53	25,050.00	50.00	24.99
33									
34	ACT-TOT	25,000.00	6,248.47	18,325.00	18,751.53	426.53	25,050.00	50.00	24.99
35									
36	5 FCT-TOT	25,000.00	6,248.47	18,325.00	18,751.53	426.53	25,050.00	50.00	24.99
37									
38	FUND CURR TOT	25,000.00	6,248.47	18,325.00	18,751.53	426.53	25,050.00	50.00	24.99
39									
40	FUND TOTAL	25,000.00	6,248.47	18,325.00	18,751.53	426.53	25,050.00	50.00	24.99
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RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY

REQUEST FOR BOARD ACTION

8

CHAIRMAN JOHN FINLEY		Board Action Requested
Originating Department		
J. T. Finley (S)	1/20/88	
Authorized Signature	Date	APPROVE BUDGET TRANSFER \$3,000.00 from Contingent Appropriations

Request Justification

See attached Proposed Resolution

See attached Budget Transfer \$3,000.00

Budgeting and Accounting	<i>Ed Glanville</i> 1/21/88	Date / Time Received By
County Attorney		
Risk Manager		
Data Processing		
Previous Action taken on Request		

Comments / Recommendation

Documentation certified complete for:

Committee / Meeting Date	Signature	Date
Committee / Meeting Date	Signature	Date
January 26, 1988	<i>J L Glanville</i>	1/20/88
Board Date	Signature	Date

DRAFT
RESOLUTION
BOARD OF
RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY

Date:

No.

Page 1 of 1

WHEREAS, Ramsey County Regional Railroad Authority is in the process of obtaining information concerning the feasibility of Light Rail Transit within Ramsey County; and

WHEREAS, It may be necessary for Regional Railroad Authority Commissioners, or Ramsey County staff personnel, to travel outside the Ramsey County area to study and obtain information concerning Light Rail Transit; and

WHEREAS, Funds are available in the Contingent Appropriations of the Ramsey County Regional Railroad Authority 1988 Budget to fund this travel, Be It

RESOLVED, That the Ramsey County Regional Railroad Authority approves the following budget adjustment for this purpose:

TRANSFER FROM APPROPRIATION:

59101	061001	Contingent Appropriations	\$3,000.00
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TRANSFER TO APPROPRIATION:

59101	021407	Other Travel	\$3,000.00
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- Report Copy
- Retained Copy

No. _____
(For Budgeting & Acctg.
Use Only)

RAMSEY COUNTY
REQUEST FORM FOR BUDGET ADJUSTMENTS

DEPARTMENT: NAME: RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY

ORG.# 59101

The Budget Adjustment requested will require the following:

1. ☒ <u>XX</u> Transfer From Appropriation } Check Applicable ☐ Increase Estimated Revenue } Box(es) 2. For Accounting Dept. Use Only Unencumbered Balance Before Adjustment <u>1/20/88</u>				
Org. #	Account No.	Account Title	Amount	
59101	061001	Contingent Appropriations	3,000.00	<u>50,000.00</u>
TOTAL _____				
3. ☒ <u>XX</u> Transfer to Appropriation } Check Applicable ☐ Increase Appropriation } Box(es)				
Org. #	Account No.	Account Title	Amount	
59101	021407	Other Travel	3,000.00	<u>φ - New</u>
TOTAL _____				

4. Reasons for Adjustment Request:

To provide funds for travel of Ramsey County Railroad Authority Commissioners, or Ramsey County staff for preliminary study and evaluation of light rail transit.

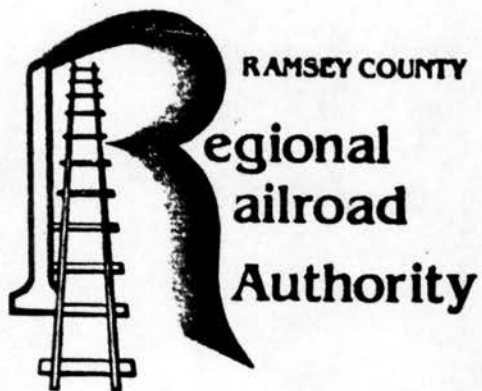
(Attach sheet if more space is needed)

Approval requested by: Ed Klantitz Date: 1/20/88
Authorized Signature

Approved by Budget Analyst: Ed Klantitz Date: 1/20/88

Approved by Budget Director: James Van Hout Date: 1/20/88

Approved by Board of Co. Commissioners: _____ Date: _____



Room 316 Courthouse
15 W. Kellogg Blvd.
St. Paul, MN 55102
Phone 298-4145

John T. Finley, Chairman
District 3
Diane Ahrens
District 4
Ruby Hunt
District 5
Duane W. McCarty
District 1
Hal Morgard
District 7
Donald E. Salverda
District 2
Warren W. Schaber
District 6

AGENDA

JOINT MEETING

Ramsey County Regional Railroad Authority and
Regional Transit Board
Monday, February 8, 4:00 p.m.
316 Courthouse

1. Introduction of Board members, staff and consultants JOHN FINLEY
ELLIOTT PEROVICH
2. Introduction to Midway Corridor Light Rail Transit Study KATIE TURNBULL
3. Roles of participants KATHY DE SPIEGELAERE
4. Process DICK WOLSFELD
TONY HEPPELMANN
 - Criteria for evaluation
 - Alternative alignments
 - Progress to date
5. Transit philosophy CONSULTANTS

Options if time permits:
6. Financing CONSULTANTS
7. System standards CONSULTANTS
8. Next meeting

MINUTES

JOINT MEETING

RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY

and

REGIONAL TRANSIT BOARD

February 8, 1988

Chairman John Finley of the Ramsey County Regional Railroad Authority opened the meeting at 4:00 P.M. on Monday, February 8, 1988, which was held in Room 316 of the Court House.

Chairman Finley explained that the purpose of the meeting with the Regional Transit Board is for an update from the consultants which have been hired by the RTB to do a study on the Midway Corridor between the two downtowns and the University of Minnesota. Both Boards have approved the work plan under which the BRW is proceeding to conduct the study. There are two citizens groups who are reviewing the study and working with BRW as it is going through, one is called the Midway Corridor Task Force which is a group of citizens in the affected area, which were appointed by the Ramsey County Board, and the other is our Citizens Advisory Committee which has also been appointed by the Ramsey County Board.

Chairman Finley introduced himself, he is Chairman of the Ramsey County Regional Railroad Authority, and asked that others present introduce themselves also. The people present were Elliott Perovich - Chair of the RTB, Commissioner Hal Norgard, Commissioner Duane McCarty, George Isaacs RTB, Alison Fuhr - RTB, Commissioner Ruby Hunt, Kathy DeSpiegelaere - Ramsey County, Katie Turnbull - RTB, Commissioner Donald Salverda, Commissioner Diane Ahrens, Carole Faricy - RTB, Rochele Graves - RTB.

Members Absent were Commissioner Schaber, Doris Caranicas - RTB, Ruth Franklin - RTB, Paul Joyce - RTB and Edward Kranz - RTB.

Chairman Finley called on Katie Turnbull from the RTB to give an introduction to the Midway Corridor Light Rail Transit Study.

Ms. Turnbull addressed the joint Boards, this work has been going on since before Christmas, both groups adopted the joint work program which has really has four major work activities - the alignment analysis which has been a major focus and on which will be heard an update at this meeting, a update with Hennepin County activities have been moving forward there, they have been in discussions with them about what happens with the portions where they currently made a recommendation on the University Campus, public participation and public information process which Ms. DeSpiegelaere will be talking about, and then the financial feasibility and scoping some different analyses and alternatives which will also be touched on briefly today. As was mentioned, the RTB issued an RFP through an agency, a consultant selection process followed, and the firm BRW was selected with the sub consultants of Bechtel, LTK, and RH Pratt. These groups have been working with the different Advisory Committees and the staff from Ramsey County, RTB, City of St. Paul, Mn/DOT, Metropolitan Transit Commission and the Metropolitan since the first of January. A great deal of activities have been going on, and this will be seen in the presentations this afternoon.

Joint Meeting RCRRA and RTB
February 8, 1988

Ms. Turnbull said they wanted to keep the presentations very short, to allow an opportunity for the Boards to raise questions or discuss among themselves the status so far. One of the items on the agenda today is the Transit Philosophy, which will be a good topic for discussion.

Chairman Finley called on Kathy DeSpiegelaere to explain the roles of the participants.

Ms. DeSpiegelaere presented a brief summary, in 1980 the Regional Railroad Authority bill was passed for the County to provide for rail passenger traffic. In 1984 the Regional Transit Board was created to perform transit planning for the Twin Cities metro area. Ramsey County formed a Regional Railroad Authority in 1987. The law says that this Authority may engage in activities related to light rail transit.

A Decision Process and Information Flow Chart was distributed, this shows that the RTB and Ramsey County are partners in the study that is currently being conducted on alignment. Additional agencies and citizens groups are involved, Metro Council, Hennepin County, City of Minneapolis, City of St. Paul.

The Citizens Advisory Committee consists of fourteen members throughout the County - was formed in September, and will give a recommendation to the Regional Railroad Authority. A Corridor Task Force was formed recently and will also give a recommendation on alignment. Agency staff participating includes representatives from the MTC, St. Paul, MN/Dot, Metro Council, University of Minnesota, and Capitol Area Architectural Planning Board in addition to Ramsey County and the RTB. The primary consultant is BRW.

Chairman Finley called on Dick Wolsfeld to give an information update on the Process - where they are in the study, and how these activities are being coordinated.

Dick Wolsfeld addressed the Boards, universe location alternatives between downtown St. Paul and downtown Minneapolis will be discussed, and how they will go about narrowing those alternatives. Mr. Wolsfeld then displayed a large map, and pointed out the six base alternatives they started with. First, is the Burlington Northern Alignment which follows the northern BN mainline track, this happens to be in the same general vicinity of the proposed transitway between the St. Paul Campus and the West Bank Campus of the University of Minnesota. The second alternative was the southerly BN line, which is also shared by the Soo Line, so they have two different ways of getting into downtown St. Paul with that railroad alignment. The third alternative followed University Avenue between the two downtowns, and then came across Washington Avenue to get to Minneapolis. The next alternative is on I-94, and that could be anywhere on the frontage roads, in the side slope, or possibly even a median at this point in time. The fifth is marginal, and the sixth is the Soo Line has a track which crossed University and Washington split, and then goes past the Dartmouth interchange and follows I94, parallels that, and then swings further to the SE, and goes over to a connection with 35E. This Soo Line RR is in the process of being abandoned over a certain share of it, and there is a possibility for joint operation over the rest. They have taken a number of the alternatives and tied them into the Soo Line track. The sixth one is what

we call the Soo Line alignment, initially they had that coming in from West Seventh Street and coming into the downtown area. There are lines shown which are the results of the work they have done with the two Advisory Committees in terms of them making suggestions on additional alternative, one is to follow 35E, and then come in along Shepard Road, other is to stay on 35E until you come into the downtown.

This was the universe of alternatives that they started with. There were four other alternatives that they looked at and rejected because of severe problems, and the fact that they did not serve major destinations, so they were dropped.

Mr. Wolsfeld mentioned the four alternatives that were dropped, the first was the Soo Line between Trunk Highway 280 and Hiawatha, and where this is - he pointed out on the map, it is a single track bridge which is a very important part of the Soo Line, and they have told us that connection is not available. Otherwise, it might have been possible to come up the Soo Line and into Hiawatha to get to downtown. The second problem with this would be that it bypasses the University of Minnesota.

The second alternative dropped was Marshall Lake Street between Snelling and Hiawatha because again it missed the University of Minnesota, this would have been an alternative which he pointed out on the map.

The third was Summit Avenue between the shortline and West Seventh, and the reason that was dropped was its residential character and the historical nature of the street.

The fourth was 35E between the shortline and downtown St. Paul because of the lack of available right of way.

Mr. Wolsfeld has pointed out to the Committees if they want the consultants to put them back in and analyze them they would do it.

The questions for evaluating alternatives and selecting a preferred alternative for light rail service between downtown St. Paul and downtown Minneapolis, and the process they have defined to do that is what technicians would call a screening process. They will look at the alternatives, in increasing levels of detail as they get into the planning process. The three possible screens for looking at alternatives - is first, they would like to have each of the six alternatives evaluated as to whether the right of way is available, roadway capacity available as we may be taking away roadway capacity - is there other roadway capacity, and is it compatible with residential uses. These three criteria are what the Committees were asked to use as the basis for the initial screening of alternatives.

Then, they would get into more detail, keep those three criteria, and add four more, does it serve the markets that we want to serve, what are the generalized capital costs, what is the development potential of the alternatives, what is the impact on transit dependence which they have defined as under 16, over 65, of low income, or of households without any automobiles available, a zero car household. These seven criteria would then be used to evaluate the remaining alternatives. Then, when they get down to the final two or three, they would then get into significant more detail in terms of still looking at right of way available, but looking at how it would connect to other LRT lines, more detailed analysis of the traffic impacts, the

development potential, more detailed analysis of the ridership in looking at travel times, market sizes, parking potential, how it relates to the feeder busses, proximity to the origin and destinations and what the ridership differences then are amongst those remaining alternatives, and transit system integrity which looks again at the transit dependence, impact on current transit users in terms of station spacing and walk time to the stations, land use capability, environmental impacts, generalized in terms of air quality, noise, vibrations, esthetics, capital operating costs and constructions impacts. As they narrow the alternatives, the idea is to increase the amount of detail about each of those alternatives. To date using the Screen 1 criteria, what the two Advisory Committees have recommended is to drop the northerly BN alignment, and to drop the Marshall Dayton alignment, so 1 and 5 have been proposed to be dropped. In addition, one of the Committees voted to drop, but to give further consideration to the Soo Line and 35E and West Seventh Street, and they are at present looking at the right of way availability.

Mr. Wolsfed informed the Committee that the Minnesota Department of Transportation has joined the staff, and there are some court findings relative to 35E in terms of design, the median, what goes in the median, that may preclude light rail transit from being added to that corridor. They are in the process of researching these activities.

The reasons for dropping the northerly one is that they met with the BN RR people and they told us that this is an important mainline and that right of way is generally not available as has been shown. Line 2 while there may be some problems, there is at least some potential there.

Marshall Dale analysis consisted of traffic lines, how much would be left after the facility is built, what happens to the sidewalk. So, on the basis of this analysis, they voted to drop this alternative.

George Isaacs said one of the things that we are looking at joint operation with a an operating railroad, and it is a concern to him in the fact that there are only one or two examples where there is a very moderate amount of freight operating on a light rail line, but if you get other than moderate, there are some problems. He discussed Los Angeles they had some problems with the Union Station at Long Beach, where they were going to be running down the same corridor, not on the same tracks as the Southern Pacific, now they have added another \$67 million to move the Southern Pacific into another area. It is a caveat that we look at joint operations very, very carefully, although the gauge is the same, the rail looks the same, the operation is not the same. We should be very careful in any kind of evaluation, as the host railroad is the one who controls what goes on if you have joint operation.

Chairman Finley said in San Diego when they acquired the rail line, the freight operation is contracted out by the light rail entity to a different carrier like a transfer carrier as opposed to the one who formerly owned the railroad, so that they carry on the freight operation, but the control as Mr. Isaacs pointed out is very important, so the control remains with the political subdivision that is operating the light rail transit instead of having the railroad controlling the movement of the freight, that is an alternative. San Diego took complete control of everything then contracted out for the movement of the freight at hours when light rail was not going to be at ites peak.

Mr. Wolsfeld said relative to joint operations, the Soo Line and BN are both unanimous in their agreement that joint operations does not mean mixing light rail and freight on the same track over the same time frame. For example, they would say they would move the freight from midnight to 6 A.M., and you have light rail service during the other 18 hours of the day. If joint operation means alongside, they want a barrier, they want a barrier separating the light rail from the heavy rail (this would be a crash proof barrier). The crush loads as engineers say of light rail vehicles is about 120,000 lbs and of a train is it about 800,000 lbs, so it is about a 6 to 1 ratio, it is like a semi hitting a Volkswagen. Both of them would not tolerate joint operations, mixing those two in the same time period over the same track.

Commissioner McCarty asked Mr. Wolsfeld to again explain the Marshall Avenue corridor, and expand on this. Mr. Wolsfeld generally the reasons on that street relate to the lack of available right of way in the case of one way streets, when you take the 12 or 13 feet for light rail, that either requires removing parking or taking a lane of traffic, which is one of the issues, the other issue then is the compatibility of light rail transit with the residential neighborhood. Mr. Wolsfeld showed a plan with one way contra flow, this means that the light rail vehicle operates in the opposite direction from the one way flow. The reason for that is that if people are driving against it, when they make a right or left turn, it is much easier, they can see the oncoming vehicle as opposed to when they are running the same way. He pointed out the 12 foot, the boulevard, the walk, parking, you are left with one traffic lane as opposed to two, unless you take the parking off. The other issue related to residential character of the two neighborhoods, which is probably a more prevailing reason than the impacts, he showed generalized looks at the current traffic volume on the streets, the current capacity of the street system, and the ratio of the demands and supply, and presently all of those streets are operating at a reasonable level of service, University Avenue is about 66 2/3 to 90%, then with light rail transit, some capacities are reduced, then on Marshall you would still have acceptable traffic operations. That was not a problem, the primary issue on Marshall was the compatibility with the residential character of the neighborhood.

Chairman Finley asked Mr. Wolsfeld to review what the current volumes are the streets, as some Commissioners have not had an opportunity to review the data that has been provided. Mr. Wolsfeld said that for each of the streets they are looking at current demand for travel, current traffic volume, and current capacity of the street system to accommodate that volume, then they ratio the demand to the supply, when the demand exceeds the supply, and that ratio is over 1, you have traffic operational problems, so you want that ratio less than 1, and then re-computed the capacity with the light rail transit, taking a lane out of the system as the case may be, then recomputed the same volume against the denominator which has been reduced as you have taken over the light rail. For University Avenue the current traffic volume varies between 17,000 to 26,000 per day, the capacity is approximately 30,000 per day. They did the same for Marshall Avenue, they did it for Selby, for West Seventh on the shortline. They have done this same kind of analysis for right of way, acceptable traffic operations, and residential compatibility.

Mr. Wolsfeld explained the West Seventh Street proposed light rail, and it was felt that the right of way was not practical for this.

Mr. Isaacs asked if in the analysis of the traffic alignments a certain percentage would not be using University Avenue with a vehicle, but would be using light rail, so there may not be less use as far as cars are concerned, but you would think there would be some diversion, so that in fact, the number of cars at the light rail would not be as high as the number of cars before light rail. Mr. Wolsfeld said they are going to use 30 to 60% of the capacity and there really isn't a problem, or are we getting very close by taking some of the street capacity away to its limits. When they get to the succeeding level, we will then almost go on an intersection by intersection basis to do the capacity analysis, and they will also look at mitigation do they add a right turn lane, put in a double left turn lane, are there other things that can be done to improve the signalization in order to solve the problems.

Mr. Wolsfeld showed the diagram of University Avenue, this is different for the two way vehicles than was shown for the other. Under this concept for University Avenue the light rail transit service would be located down the center of the street, there would then still be two traffic lanes in each direction, the parking would still be on both sides of the street. There is 120 feet of right way, that would leave approximately 12 feet for a boulevard on either side. That, does not allow anyone to get on or off the vehicle where you put stations in, and stations generally are 9 to 10 feet wide, and that allows the people to get on and off the vehicles. Those who have seen the Portland Burnside Corridor is identical to the way that it would be applied on University Avenue. Opposite of this station is where you put the left turn lanes, so, you shadow the left turn lanes with the station, they are offset from each other, and that is where you put in the turn lanes. Then, you would lose parking on both sides at the station locations with the 120 feet of right of way.

Mr. Isaacs pointed out, if in fact it replaces the local busses stopping every block which takes a certain number of parking spaces, you may end up with a no net loss depending upon the spacing of the stop, as right now wherever there is a bus stop on either side, there is at least three parking spaces that are lost. Parking space has to be determined.

Commissioner Hunt would like to know how long a station would be. Mr. Wolsfeld said length is generally determined by the length of the train or the vehicles, they would like to have at least 300 feet of width for the station, and that would easily allow to run 3-car trains with a 90 foot vehicle, you could even do 4 car trains with a 70 foot vehicle. The standard is 90 feet long. That restriction is going to be dictated by the shortest block in the system, so the ends of the vehicles do not hang out into the intersection. These are from curb face to curb face are about 330 feet so three 90 foot vehicles would work fine throughout downtown Minneapolis and St. Paul.

Chairman Finley asked if Mr. Wolsfeld had an overlay to show this with the rail corridors, and Mr. Wolsfeld said he did not have this in relationship to widths. The minimum railroad right of way is 50 feet, in some cases 100 feet, the light rail

transit without a station takes about 24 feet to 27 feet, then if there is parallel railroad service, you need a barrier, and if you have stations, it would be about 47 feet in width where you have stations.

Commissioner McCarty asked if you are using the same platform to take passengers on, as you are using to take passengers off, and the width of the platform. Mr. Wolsfeld said the platform would be 9 to 10 feet. They would have a shelter area, and there would be a barrier on the back to separate the automobiles from people waiting.

Another issue Mr. Wolsfeld said they would talk about is the access to the elderly and handicapped, which has turned into a very complex issue. If you want to load people at the floor height of the vehicle you are up about 40 inches off the ground. This platform is much higher than that, it is not a street level platform, and elderly -handicapped accessibility is a major issue that we have to deal with.

Ms. Fuhr asked why they did not have a station on the other side. Mr. Wolsfeld pointed out on the plan that the third vehicle is in the turn lane, and there would be another station across the intersection, and on the other side of the intersection is the other left turn lane.

Chairman Finley asked why on some plans the vehicles were shown to one side, and on University Avenue you have them in the middle, can it be moved over so that we might have an alternative to solve the handicapped problem. Mr. Wolsfeld said there are three alternatives, you can run them down the center, run split open, and run against the curb, or run them together, but either on one side or the other side. There are advantages and disadvantages of each. By running it in the center you minimize the conflict with the outside lanes, and you preserve the parking lane. If you ran split operation on University Avenue, that would dictate that all the parking on both the north and south sides of the street would be eliminated, so that would not be a very popular alternative. So, that is why they are in the center, so as to preserve the parking along University Avenue, reserving it on both north and south sides. Whereas, on Marshall they said they could leave it on one side of the street, and people could walk across, which would have been easier than walking across University Avenue. Primary reason is to preserve the on street parking.

Chairman Finley would like to know where in the process, as it goes through the Advisory Committee and respective Boards are they going to be submitting the rationale when you get down to the final plans, as the County Board members are not as familiar with transit as the members on the Regional Transit Board, as the RTB may have done a lot of elimination over the course of the years that we would now know why something is not being suggested. It is important that the County Board know why something is not being suggested, as to why something is being suggested. He asked that the RTB and the consultant bear with us as we go through the process. Being so new at this game, we want to try to make decisions as much available information as possible.

Mr. Wolsfeld said it is up to the County Board as to how much time they want to spend on the issue. Both of the Advisory Committees are very good advisory committees, they are taking their tasks very seriously, spending a lot of time analyzing the

alternatives, asking very good questions, and are doing a good job. You have a problem all the time as to how much time you want to spend on a particular issue, this is a very important issue, and staff would be prepared to spend as much time as the Board wants on it.

Chairman Finley said from the Board's standpoint, they are used to receiving a lot of the information in writing so that they can read it, evaluate it, and then ask questions. Through the Advisory Committee screening we may probably be asking some written, basic criteria that is being suggested here, rather than just an outline form. He has been reading everything that has been coming through, and it is a lot of material, and not everyone has the opportunity to review it.

Mr. Wolsfeld thinks it might be appropriate when we get through the second screen, and we find that maybe find two to four alternatives to see if everyone is in general agreement with that so that they are not analyzing alternatives that everyone agrees are not feasible or if they may have missed an alternative in the Advisory Committee's process of screening process. Maybe the Board would like to comment with advice prior to the detailed analysis.

Ms. Fuhr asked where Amtrak is as shown on the layout displayed, /pointed out on the map where No. 6 is shown, joined at Minnesota Transfer. and Mr. Wolsfeld

Chairman Finley has told the Advisory Committee that although the County has the goal of late February, that if they do not feel comfortable in coming up with their decisions at this point because of the fast track, that the Board would feel better if they were more comfortable with taking more time to arrive at decisions they should do so.

Ms. Turnbull echoed a comment which Mr. Wolsfeld made that both of the Advisory Committees have done a excellent job, and made a great effort attending the Committee meetings. They are really spending the time in asking good questions. It is a very good group.

Chairman Finley asked if Mr. Wolsfeld wished to touch on the financing information. The Ramsey County Board received at the last meeting a breakout as to the effect the fourteen different criteria that Hennepin County is looking at, and how it affects Ramsey County.

Mr. Wolsfeld discussed the status report of Hennepin County Financial Planning Activities. They have initially considered between 12 and 15 different funding sources. Financial Advisory Committee was formed under the direction of Commissioner Spartz, which is composed of private sector representatives, from the banking community, regional transportation officials, members of the State House and Senate, and they narrowed those alternatives to five from the fifteen: Property Tax, Surcharge on License Plate Fees, Motor Vehicle Excise Tax, Tax Increment on Development Around Station, and Sales Tax on Parking Fees.

Mr. Wolsfeld distributed this Status Report of February 5, 1988 to the members present. They gave Hennepin County a set of scenarios for Stage 1 and a 20 year plan were developed. The preliminary capital costs numbered between \$250 and \$300 million on Stage 1, and \$500 to \$600 million on the 20 year.

Mr. Wolsfeld gave them a detailed analysis that each of the sources of revenue would generate, and gave them a refined set of Stage 1 components, and better capital costs, and as a result of that they have reached some conclusions that Stage 1 should be funded at a level of \$375 million, this would require 1 mill property tax levy, 10% surcharge on license fees, 30/30 Motor Vehicle Excise Tax Transfer which is sales tax on automobiles and trucks, and then Tax Increment around the stations, they would sell the \$375 million in bonds over a six year time frame. The thought in Hennepin County is to start on two, possibly different three corridors as part of the Stage 1 plan. For the State Legislature to give Hennepin County the authority to issue a surcharge and to divert the MVET from the general fund is a long shot. The County would have to enter into an agreement with the local unit of government for the tax increment plan.

Mr. Wolsfeld said since the two counties have to join, it would be better if they were levying the same, but they do not have to be. This is what the consultant was suggesting as an approach to funding for the Midway Corridor was to have Ramsey County review and comment on these sources, and whatever other sources Ramsey would think as appropriate. They would then begin the productivity study of looking at these particular sources in terms of what a mill generates, surtax, MVET, the potential for federal funding is very different for Ramsey County and the Midway Corridor and other corridors in Hennepin County. It is much higher here, and then there is the potential for tax increment. It would be his suggestion for Ramsey to narrow down the kinds of revenue sources that might or might not be possible.

In response to Commissioner Ahrens question, Mr. Wolsfeld said the current thinking on operating deficits, is that the MTC would operate the light rail transit service, due to integration with busses, etc. If that happens, Hennepin County assumption would be that they would build the system, then they would turn it over to the MTC to operate, maintain, and to fund any operating deficit. This is a long way from being agreed upon, but this is the current thinking.

Chairman Finley feels there is no question that it is going to have to be operated metropolitan wide by someone.

Ms. Fuhr then asked about the MVET as to how much would be available, and will that transit money (MVET) come to the RTB to be assigned, assuming that we get it. Mr. Wolsfeld said in the current motor vehicle tax, there is \$238 million of essentially sales tax on automobiles and trucks that goes into the general fund. Presently, of that MVET 5% goes into a transportation fund. There is also a roadway portion, which is 75% of the total, and a transit which is 25% of the total, then of the transit, that is split metro and outstate 80/20, and then what Hennepin County said is of the 80, they would like 30, which would leave 70% for other transit needs, etc. You would end up with \$4.2 million, so this was coined the 30/30 plan.

Mr. Wolsfeld then discussed the transit philosophy, which is the most important part of the process. There are two approaches, you adopt a philosophy as you go into the project, the other is that you look at the information, different philosophies, and a philosophy evolves and comes out of the planning process. They would suggest that it be more appropriate to let the transit philosophy evolve and come out of the

process as opposed as going into the process. They listed A which says the station spacing ought to be fairly a mile plus in length, places to achieve top speed of 50 miles an hour, an average operating speed of 32 miles per hour with stops, parallel bus service would have to be significant, and right of way that is fully controlled.

B shortens the station spacing, lowers the top speed, lowers the operating speed, allows you to reduce some parallel bus service, and allows the less restricted right of way.

C would mean the busses would quarter mile stop, 30 to 35 miles an hour, 12 mile operating speed which is about what the busses attain, you then could eliminate all parallel bus service, but it would still be defined as light rail transit as you would be in a preferential right of way.

Light Rail Transit has flexibility, you can take the same vehicle, same rail, same overhead power source, then you could have stops every mile, every half mile, or every quarter mile.

If one of these transit philosophies was adopted today, it would probably dictate which of the four alternatives are left if you would choose a preferred alternative. So, what Mr. Wolsfeld is saying, let's be thinking about this in terms of what you want light rail transit in the Midway Corridor to do, provide a service more competitive with automobiles, want to have it more like the bus, or do you want something in between. When all the information comes out from the study, we will study that and put it into a transit philosophy in terms of what these Boards feel is the role of light rail in the Midway Corridor.

Mr. Wolsfeld does not think we should categorize any of these as good or bad, they should be categorized as different, these are different ways of applying the technology. Different applications of this can be seen all over the country. Different philosophies can be applied to the same corridor. Chairman Finley commented that different criteria can dictate philosophy and the type of corridors.

Chairman Finley asked about the 94 corridor, in looking at that further, will they be finding out what is available. Mr. Wolsfeld is meeting with the project manager for the reconstruction of 94, and will be working very closely with MnDot as to what is feasible or not feasible.

Mr. Wolsfeld then distributed a Summary of System Standards which covered Hours of Service, Service Frequency, Fare Collection, Vehicles, Performance, Stations, and Elderly and Handicapped Access.

Chairman Finley thanked Mr. Wolsfeld for presenting this very complex information in a short time.

Commissioner Norgard asked about the BN, and whether that could be transferred over to the lower track. Mr. Wolsfeld said they have a total of 70 trains per day on the northern route, this is a critical link in their system to the east and the west,

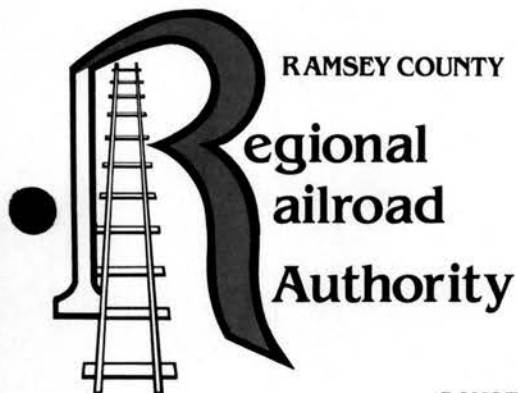
Ms. Fuhr commented that she feels the communication is very important, and this meeting will be very beneficial for both Boards, will these joint meetings continue.

Chairman Finley said we will try to continue with the Advisory Committees, and this will go to the Citizens Advisory Committee from the Task Force. Then we could have another information session.

Ms. DeSpiegelaere said the study should be completed by February 25th, and the date of February 29th was tentatively suggested.

Chairman Finley, as everyone present had agreed, said the next Joint Meeting will be set for Monday, February 29, 1988 at 4:00 P.M. in the Conference Room of 316.

There being no further matters to come before the Boards, the meeting was adjourned by Chairman Finley.



Room 316 Courthouse
15 W. Kellogg Blvd.
St. Paul, MN 55102
Phone 298-4145

AGENDA

RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY

Tuesday, February 9, 1988

****IMMEDIATELY FOLLOWING FINANCE COMMITTEE
MEETING (approximately 10:15 to 10:30 A.M.)**

Conference Room - 316

1. Minutes of the January 26, 1988 meeting.
2. Chairman's Comments
3. Information Distributed to Regional Railroad Authority Citizens Advisory Committee and Midway Corridor Task Force, dated 2/3/88.
4. Information Distributed to Regional Railroad authority Citizens Advisory committee and Midway Corridor Task Force, dated 2/4/88.
5. Approval of payment of \$2,921.61 for Attorney services for 1987.
6. Request for short term loans from Ramsey County to meet expenses until tax collections are received.

John T. Finley, Chairman

District 3

Diane Ahrens

District 4

Ruby Hunt

District 5

Duane W. McCarty

District 1

Hal Norgard

District 7

Donald E. Salverda

District 2

Warren W. Schaber

District 6

MINUTES

RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY

MEETING

JANUARY 26, 1988

The meeting of the Board of the Ramsey County Regional Railroad Authority was held on Tuesday, January 26, 1988, at 11:00 A.M. in the Conference Room of Room 316 in the Court House. Chairman Finley called the meeting to order.

MEMBERS PRESENT: Chairman John Finley
Commissioner Diane Ahrens
Commissioner Ruby Hunt
Commissioner Duane McCarty
Commissioner Hal Norgard
Commissioner Donald Salverda
Commissioner Warren Schaber

Also Present Beth Sullivan represented the County Attorney's Office
Frances Glendenning

1. Minutes - Minutes of the January 12, 1988 Meeting of the Ramsey County Regional Railroad Authority.

Commissioner Norgard moved the following recommendation, seconded by Commissioner Ahrens.

The Ramsey County Regional Railroad Authority Board approves the minutes of the Meeting of January 12, 1988, as written.

Roll Call: Ayes - 7, Nays - 0
Motion adopted.

2. Chairman's Comments

Chairman Finley addressed the Board, he discussed his trip to San Diego last weekend, and he met with the Chairman of the Metropolitan Transit, and he is the former State Senator and President Protem of the California Senate. He carried all the legislation for transit in California for 22 years, and he is now the Chairman appointed by the Governor of the Metropolitan Transit in the San Diego area. The Chairman spent about four hours with them, it was just excellent. The Chairman has some very strong feelings regarding light rail transit. He said if you are not in your exclusive right of way, one might just as well forget about light rail transit. He is now working to get the area that is not in the exclusive right of way in the downtown area to be exclusive to no cars, he does have the busses off so far. He is working with the City because of safety, handicapped, and those types of issues. This is pretty much what Chairman Finley's feeling is on University Avenue, and that we should go and look at the other corridors.

Ramsey County Regional Railroad Authority
January 26, 1988

In San Diego it is in the exclusive, old railroad right of way, they bought 108 miles of railroad right of way, and they presently have the trolley running to Tia Juana. Chairman Finley said they were on it at 2 in the afternoon and 10:30 in the morning, and it was almost full, which is not even rush hour. Now, they are going out east, towards the suburban area, with another line. The Chairman is sold on it, but the exclusive right of way was one of the criteria, and he had heard that Minneapolis was talking about going underground in the downtown area and that is a key as he wishes that he had done that in San Diego as they have not been able to be on their own exclusive right of way due to the San Diego City Council, and he has had problems. In fact the trolley is on the wrong street, the street he had wanted is two blocks over. They have spent millions and millions of dollars, and the redevelopment has all taken place, but the trolley is two blocks away.

Chairman Finley said this trip was very interesting, and a short time frame, and he thinks that as time goes on all the Board members should tie it to wherever else we may be going in some of the other areas to view some of the systems, for example, Portland. The technology is done, that is one thing that we don't have to worry about, in that it is a turnkey as far as the technology is concerned, the trains and the trackage have proved themselves in Portland, San Diego, Edmonton. It is really just corridors that we are talking about, we don't have to go back and do anything different. The Board Members should have the opportunity to start looking at some of these other areas, they may not be making money, but they have a lot of experience.

Chairman Finley noted that on the agenda is a request from James Van Houdt to set up an account for travel, which we will probably be needing if the Board Members can arrange to visit some of the areas mentioned.

Commissioner Salverda was interested in the San Diego System, when was it started. Chairman Finley said this was started in 1980, and the operations started in 1981, it was completed in one year, this is the one to Tia Juana, they stop every few blocks in the downtown area, their downtown is like ours, it is very small, the blocks are short, they don't get the maximum number as they have short downtown blocks. They feel now that the underground idea is very good idea if one could do it. To really maximize that rush hour the train is too long and it overlaps at the intersections, and they do not get the maximal number of passengers they could have. They can only have three cars coupled together instead of four. The fourth car would really maximize the utilization of it. This gets up to 50 miles per hour when it gets out of the downtown area, and it is only nine miles per hour downtown, which is not much different than the bus. They say if you are going to have all this congestion, your busses can serve that. The key is the feeder system of the busses to particular stations. The busses wait, they are 99.7% on time, they coordinate the busses, and if the bus gets there first, it waits until the train gets to that station for the loading and unloading even if it had no one there.

Commissioner Schaber asked how this system was financed. Chairman Finley said part of it was from the state gas tax, and part of it was from the highway fund. The bulk of it came from state funds, and they had some federal monies too. They are not making a profit, it is the least deficit of any in the country. As far as an overall transit system, they suggested that Toronto probably has the best if you really wanted to see everything coming together, they have under ground, busses, and on ground. Toronto has been the most successful on ground.

Chairman Finley continued, San Diego paid \$18 million for the railroad, which is the same amount of money the railroad paid to buy it in 1909. They only use fifteen miles of it now, part of the line is down in Mexico.

Chairman Finley is going to try to put together a report on the whole thing, as there is a great deal of information that he received in writing, there are some flyers, which is one page on a particular line which is all factual which will be extremely helpful to us not only for Light Rail Transit, but for other things that we are doing as far as public relations. This flyer deals with the philosophy, finances, anticipated ridership, it is very well done.

3. Update Railroad Information

Pat O'Malley addressed the Board, he went to a meeting with members of the BRW, BN, and some other members of RTB. The purpose of the discussion with BN was to discuss information concerning the existing rail lines for LRT usage. We have discussed for some time using the corridors, the two northerly corridors which he pointed out on the map, these parallel University Avenue. In the conversations with BN they have stated that they are currently operating about 70 trains per day on this north line with CNW, BN and Soo. On this particular line they are operating 50 trains per day. They are concerned mainly because on the southern line they do a lot of traffic, switching to local businesses, they are concerned with possibly the main being tied up, with the possible use of LRT on that line. They were not very promising about either one of these lines, but they did not close the door on it either, he believes they are still open on either one of those lines to discussion, and are interested in working with us as much as they can.

As an alternate, they are suggesting possibly a northerly route, for the abandoned line, which he pointed out on the map, or possibly recommending some discussions with Soo Line, concerning use of the corridor which runs along Shephard Road which he pointed out on the map.

Commissioner Schaber was interested in what line the Amtrak runs on. Mr. O'Malley said for the most part operates on the south line. They do periodically operate on the north line, but it depends on traffic, and they could be rerouted. The traffic density is pretty high on the lines, where is the switching, and according to the BRW they are anticipating light rail usage about every fifteen minutes. There may be conflict of usage with possible light rail usage.

Ramsey County Regional Railroad Authority
January 26, 1988

Mr. O'Malley continued, they did recommend that we look into the northerly route, the north-south route, and possibly using the Soo Line which is south of town. The BN owns the two lines and the Soo would own the one south of town. The Soo and BN have said it does not seem possible going south of town.

Chairman Finley said out in San Diego they still operate the freight lines and they have contracted with a transfer company that operates during certain periods of the early morning hours for the freight lines. They shut down light rail for a certain period of time. That is one thing that we can be looking at is a joint usage as we may not need light rail every 15 minutes for 24 hours a day, this would not be very cost-effective from an operational standpoint. San Diego is handling this with a railway contract, and a freight handler to handle it, it is now six hours per day.

Commissioner Schaber asked if there is enough right of way so that we could run our own line. Chairman Finley had asked Mr. O'Malley to check into this.

Mr. O'Malley responded, at the meeting they discussed what was the minimum requirement for operating of the trains, and it is 25 feet from the center line of the tracks. They like something possibly wider if it is possible. They looked at the BN lines, and some of the clearances on the right of way can run anywhere from 0 to 100 feet. They vary, widen, narrow, there are bridge crossings, and BRW suggested at the meeting if the Rail Authority is interested, they would certainly pursue looking at those maps to see if there any existing right of way to use. It does vary periodically, you can find a clearance in industrial areas of 10 feet, and in some areas where there are yard areas, can get 50 to 100 feet or more.

Chairman Finley said it appears from the information that the lines are willing to consider these lines, but there will be some problems.

Another thing that was mentioned, Mr. O'Malley said was the liability issue, the scheduling, as they are pretty much self-insured. They are concerned if something happened on their property that they would not end up being sued for it. They are also concerned about light rail transit possibly operating at high speed, through some areas where they have yard limits, where trains are required to operate at very minimal speed for safety reasons.

Chairman Finley suggested that Mr. O'Malley distribute to the Board his memo of January 26th, which is a brief summary of the meeting of January 25th. This is an update of the memo which Mr. O'Malley passed out at the last meeting, and which Chairman Finley had asked that he update.

4. Coordination of information between Midway Corridor Task Force, Citizens Advisory Committee and Regional Railroad Authority

Transit Philosophy alternatives, Alignment Alternatives, Financing Alternatives

Kathy DeSpiegelaere addressed the Board, to discuss the information that was presented last week to the Citizens Advisory Committee and the Coordinated Task Force.

One part of the documentation are the different alternatives that can be considered for light rail, and there is a map showing the East-West alignments.

In addition they will be looking at the downtown alternatives. However, they felt it was important to first focus on the East-West alignment because if some of those are eliminated, then that will affect what alignment might be proposed. The Board will be getting additional information when the alignment alternatives have been narrowed. This week the Task Force will be looking at the alignments and discussing whether some of them should be eliminated for various reasons.

The second portion of the the alignment alternatives is the evaluation criteria. This gives some of the factors that will be evaluated in connection with these, how is the right of way available for LRT, impact on traffic, development potential, ridership, how would it serve those who are transit dependent or currently using the system, land use, environment, and last but not least cost.

Chairman Finley asked that Ms. DeSpiegelaere discuss land use, as the City is going to be presenting some information for use of corridors. The City is really the unit of government that controls the use of the land.

Ms. DeSpiegelaere explained the process is going to be, the development impacts of light rail will be presented by the City on the land use, this will be in general terms of the City's planning.

Chairman Finley suggested that the Board receive this information, as he has expressed concern about this to the Mayor, he talked about Shepard Road plans, as this may affect the possibility of the southern route. Ms. DeSpiegelaere will request that it be in the form of a written memo so that this can be forwarded to the Board members.

Attachment 3 is of particular interest to many people, Ms. DeSpiegelaere discussed the issues, should LRT service be fast type of service, station placing, what type of right of way should it be constructed on, or should it be somewhat slower, and have more frequent stations. This handout was discussed at both Committee meetings last week, but it will be coming to them again.

Chairman Finley asked if any of the Board Members might have any particular feelings as to how we should give direction to the Advisory Committees, the Task Force as to our philosophy, or should we wait and let them look at the corridor studies, and evaluate those philosophical things, or whether we should give them some guidance. It does affect of course which philosophy you have, it affects the elimination of certain alignments. Then, you do not want to be dictating to the Advisory Committee if you are asking them to give you advice, but you do not want them to waste a lot of time looking at certain things if it is something which may be a different philosophy.

Commissioner Norgard as he sees it, the important thing is the University of Minnesota which is in Minneapolis, next in importance is the Agricultural College Campus, they have a terrific amount of traffic in that area, and whatever is decided upon, you have to get there. If you do not consider the University of Minnesota, we might as well forget the whole thing.

Ms. DeSpiegelaere said that staff would agree with Commissioner Norgard as staff has three criteria in considering alignment, to serve Downtown St. Paul, University of Minnesota, and to serve Downtown Minneapolis.

Commissioner Schaber does not know if we have enough information to make a suggestion, but if we use the University Avenue Corridor, that would tell us what kind of transit philosophy we would have by choosing that line, which he frankly is not in favor of. The line itself is going to dictate to the degree the type of transit philosophy we are going to have. The two northerly lines are the ones that really connect better with the University of Minnesota.

Commissioner McCarty has had a concern with the University Avenue, as the common sense in the first instance tells us that it is not going to happen, the stops, the congestion, the right of way problems, and all of that, and he is not certain as to how the Committee is reacting to that, but he feels that it is a waste of time to look at it.

Chairman Finley said from the planning standpoint that was the Number 1 recommendation, the reason being that it has a proven ridership on the bus, and it is the most successful ridership of any bus ridership in the metropolitan area, so it is very easy to make it a success by taking busses off and putting in streetcars or light rail as you have a built in ridership issue. We would all like it to be successful, but there are some practical considerations that we have to look at as well, especially when you are looking at an overall system.

Commissioner McCarty said the point is that particular segment of the transportation system on University Avenue is self-supporting in small portions along the line, but on the median average that it is only self-supporting to the extent of about 70% of the costs. What he is considering very carefully, if we were take the right of way out of University Avenue to replace the bus line, other problems may come up in addition to congestion with every block stops, you are reducing transportation surface area. It does not seem to follow that it is a good move.

Commissioner Hunt does not believe that anyone who proposed the University Avenue Corridor says that they would stop every block, what would preclude that it would not have an exclusive right of way on University Avenue. When we had street car tracks, there was still room for cars. She would want to see something before the conclusion that it was not viable, some information that an exclusive right of way was not possible. That if it was built, it would not have to stop at every block.

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Chairman Finley agrees with Commissioner Hunt, if it was to go there, it could not be stopping every block, so we have to look at the political aspects of the existing businesses that are already there, and the potential for development so it will be interesting to look at the City's land use plans, what affect does it have by stopping every half mile, rather than every block. The philosophy beyond exclusive right of way, there are other philosophical things to be considering which is really the stopping, as this is very important.

Commissioner Ahrens is sensing that some members of the Board may have formed some conclusions. She was a part of the University Avenue Corridor Study Force for two years, and it was a study of all the railroad corridors and a very heavy conclusion was the only feasible corridor is the University Avenue Corridor, and there was not talk about every block, it was every three blocks, six blocks, it would be private right of way, it would be elevated, it would be confined, and the cars would not cross the way they do now. There would be some exclusivity to that whole thing, it would go through the University of Minnesota Campus, but not the St. Paul Campus. She thinks it is important that we leave the University Avenue Corridor in because it may be the only alternative out there because of what we are hearing in terms of railroad rights of way. Her suggestion is that the southern corridor is really not feasible for all of the above reasons, it does not touch the University, it would be straight from downtown, maybe stopping in the Highland area somewhere, and frankly, you could take a bus and make one stop at Snelling to get to downtown Minneapolis via 94. Maybe there is something that she does not see any advantage at all, the concentration needs to be where the ridership and the population primarily is, with the U of M in the picture.

Commissioner Salverda would be hesitant to make too many decisions without the Advisory Committees consultation, as we have gone to a great deal of effort to mobilize them and ask for their input, and we should respect that. Everyone is talking about the philosophy, but initially without having done much study, he would lean on the dialogue with the Advisory Committee.

Commissioner Schaber said initially he was under the impression that we were talking about something on the ground, but Commissioner Ahrens talked about something elevated. Commissioner Ahrens did not mean elevated in that sense, it would be separated by an elevation of six inches, it is set apart from the track, it is not up in the air.

Commissioner McCarty asked if this was the case, what do you do with the intersection, how much traffic would you displace, he is concerned that we not spend a lot of time and money on studying and trying to confirm the obvious. Commissioner Ahrens explained that her study was not the People Mover study. Chairman Finley explained that the study came together in 1986 which was study of the Metropolitan Council.

Commissioner Norgard asked about the cost figures between underground and flat surface. Ms. DeSpiegelaere does not have the information at hand, but there is a substantial difference.

Chairman Finley said the difference would be if you went underground against overhead, you would be talking in the neighborhood of at least what a highway construction would be about \$40 million per mile. There is a big advantage area in the metropolitan area as far as underground because of the limestone sandstone combination, the tunnels are there, and the limestone serves as a roof, it is not necessary to put in borings to support it as the limestone is there. The sewer running under the Mississippi River to Minneapolis has train tracks running in it right now.

Chairman Finley feels there seems to be some consensus, everyone is starting to form some philosophy, but it seems to be the consensus that we do not want to impose that philosophy at this early stage on our Advisory Committee, and let them proceed as they see fit as far as the Corridor Study.

Commissioner Hunt said there might be a consensus that we are not in favor of the transit stopping at every block, she would feel comfortable with that, as it defeats the whole purpose of a rapid transit.

Commissioner Ahrens feels it is difficult to make the distinction between light rail transit and rapid transit.

Chairman Finley said that we are going to let the study and the corridor determinations or recommendations that influence the ultimate philosophy, what we are really saying at this juncture, as long as the Advisory Committee will keep in mind that we will ultimately be making that determination. This should be mentioned. Ms. DeSpiegelaere has advised him that the Task Force and the Advisory Committee have approved the very difficult time line, and have accepted it that it is going to be a lot of work in a short period of time, and she was very impressed with the Task Force membership.

Ms. DeSpiegelaere discussed the financial information attachment, which Budget and Accounting has reviewed. Some of the information was from Hennepin County, and some were slightly revised for Ramsey County. Chairman Finley believes this is a valuable tool as it tells us how much money we can get from the sources, as the multiples are surprising, there are several sources to look at without overburdening the property tax.

Chairman Finley feels that this is very good information for us down the road.

5. Payroll Tax Information

This was obtained at the request of Commissioner Schaber, and Ms. DeSpiegelaere explained that based on the 1980 census, 37% of the workers in Ramsey County reside outside of the County.

Hennepin County Forum collected information on what payroll tax would raise \$37.8 million annually within Ramsey County, this would be a tax rate equivalent to Portland. This would be six tenths of one percent of the \$6.3 billion wages in Ramsey County.

Chairman Finley commented that this would be a very significant amount.

Ms. DeSpiegelaere said the levy in Portland is used not just for light rail services, but most of their transit services.

6. Appointments to Midway Corridor Task Force

Commissioner Salverda moved the following recommendation, seconded by Commissioner Hunt.

The Ramsey County Regional Railroad Authority approves the following appointments to the Midway Corridor Task Force, Bill Jones as representative from District 10 Community Council, and David Bradshaw from the District 17 Community Council.

Roll Call: Ayes - 7, Nays - 0
Motion adopted.

7. Quarterly Report of Payments

Commissioner Schaber moved the following recommendation, seconded by Commissioner Norgard.

The Ramsey County Regional Railroad Authority accepts the Quarterly Report of payments authorized by the Budget and Accounting Director for the period of October 1, 1987 through December 31, 1987.

Roll Call: Ayes - 7, Nays - 0
Motion adopted.

8. Approve budget transfer \$3,000.00 from the Contingent Appropriations

Commissioner Salverda suggested that this amount be increased to \$10,000, as he does not think it is going to be enough if Board Members should be going to view other systems.

Commissioner Salverda moved the following recommendation, seconded by Commissioner Norgard.

The Ramsey County Regional Railroad Authority approves the following budget transfer for the purpose of funding travel for the Board or staff to travel outside Ramsey County to study other Light Rail Transit Systems:

TRANSFER FROM APPROPRIATION

59101	061001	Contingent Appropriations	\$10,000.00
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TRANSFER TO APPROPRIATION

59101	021407	Other Travel	\$10,000.00
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Roll Call: Ayes - 7, Nays - 0
Motion adopted.

Chairman Finley suggested that the Board members keep some of this financial information for reference as it is going to be very important as we get close to the end.

The Joint Meeting with the Regional Transit Board is scheduled for the 8th of February, and he sent a reminder to the members last week.

Commissioner Salverda asked if Chairman Finley went to the Advisory Committee Meetings. Chairman Finley said he went to the first meeting of the Advisory Committee, and he is planning on attending one Task Force Committee Meeting this week. He does not know if it appears that we are putting pressure on them, he does not know. These meetings are open to anyone who wants to attend, however, he intentionally, has not gone as he feels we are asking them for advice. In fact the one meeting he attended, he left after his opening welcoming speech, and he intends to do the same thing this week with the Task Force. The schedule of these meetings has been furnished, and if anyone wishes to go, they certainly may do so.

Commissioner Salverda was concerned if no one shows up, the Committees might feel that the Board is not interested in what they are doing, and he does not want that to happen.

Ms. DeSpiegelaere feels that the members of the committees would be delighted if any of the Board members showed up. Commissioner Salverda suggested that a Board member maybe attend one of the meetings to give them support. Ms. DeSpiegelaere suggested that if anyone is going they should contact her as the location may be changed.

Commissioner Norgard commented that he had watched a TV Forum on light rail transit, which was very interesting, Hennepin County is very interested in this, the legislator and the County both presented their case. He feels that Ramsey County has to be involved in this, as we cannot have the light rail stop at the county line.

Chairman Finley said this is coming, it depends on how much input we are going to have, and whether or not we are going to be a part of the system for the benefit of our constituency, we had better be a part of the system.

Commissioner Schaber commented that with the financing alternatives that we have now it looks a lot better than before.

Chairman Finley said it is really surprising the multiples being what they are it shows how much capability there is in Ramsey County. We have a lot of people working here, lot of sales taking place here, areas that can be tapped for transit purposes if that is what we are looking to.

Commissioner McCarty asked about the tunnels that you do not have to shore it, and Commissioner Norgard said this was part of the TV Forum, it showed what layers of stone they have and how well it works. That tunnel goes here in to St. Paul, to the University of Minnesota, north to University all the way out of Hennepin County to Anoka County, it is amazing, there are trains running down there right now. The layers we have there is no shoring or anything, there are certain levels that takes care of it.

Ms. DeSpiegelaere advised the Board that there will be an International Tunneling Conference here in March.

Chairman Finley declared the meeting adjourned.

RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY

REQUEST FOR BOARD ACTION

2

<u>Chairman Finley</u> Originating Department	Board Action Requested Chairman's - Comments
_____ Authorized Signature	<u>2/4/88</u> Date
Request Justification	

Budgeting and Accounting _____ County Attorney _____ Risk Manager _____ Data Processing _____ _____ Previous Action taken on Request	Date / Time Received By
---	----------------------------

 Comments / Recommendation

Documentation certified complete for:

Committee / Meeting Date	Signature	Date
Committee / Meeting Date February 9, 1988	Signature <i>J L Henderson</i>	Date 2/4/88
Board Date	Signature	Date

RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY

REQUEST FOR BOARD ACTION

3

<u>Public Works</u> Originating Department <u>K. DeSpiegelaere</u> <u>2/3/88</u> Authorized Signature Date	Board Action Requested Information Distributed to Regional Railroad Authority Citizens Advisory Committee and Midway Corridor Task Force
Request Justification	

See attachments with cover letter dated 2/3/88

Budgeting and Accounting _____ County Attorney _____ Risk Manager _____ Data Processing _____ Previous Action taken on Request _____	Date / Time Received By
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 Comments / Recommendation

 Documentation certified complete for:

Committee / Meeting Date	Signature	Date
Committee / Meeting Date	Signature	Date
February 9, 1988	<i>F. L. Henderson</i>	2/4/88
Board Date	Signature	Date

MEMORANDUM

To: Ramsey County Regional Railroad Authority Commissioners
Executive Director Terry Schutten

From: Kathryn DeSpiegelaere *KD*

Subject: Information Distributed to Regional Railroad Authority Citizens Advisory
Committee and Midway Corridor Task Force

Date: February 3, 1988

At the January 28 meeting of the Midway Corridor Task Force and February 2 meeting of the Citizens Advisory Committee, the information attached was distributed:

1. Right of way and traffic capacity information on alignments in the Midway Corridor being considered for light rail transit (Attachment 1).
2. "Great Expectations" contains information on the Portland, Oregon area's light rail transit system's impact on development (Attachment 2).
3. "Light Rail Transit: System Design for Cost Effectiveness" discusses San Diego, California's light rail transit private development investments (Attachment 3).
4. System standards developed for Hennepin County's light rail transit system. This includes information on hours of service, frequency of service, vehicle accessibility, fare collection methods, security and staffing of an LRT system (Attachment 4).

Recommendation:

For your information.

KD:smw

MIDWAY CORRIDOR
LRT PLANNING ANALYSIS

BRW, Inc.
1/28/88

WHEN CONSIDERING LRT OPERATIONS IN A RAILROAD ALIGNMENT,
SOME ISSUES THAT SHOULD BE CONSIDERED ARE:

- O SAFETY OF TRANSIT RIDERS
- O LIABILITY FOR SERVICE INTERRUPTION AND ACCIDENTS
- O INTERFACE WITH YARD SWITCHING OPERATIONS
- O SPEED LIMITATIONS
- O ACCOMMODATION OF RAIL CUSTOMER SERVICE

WHEN CONSIDERING LRT OPERATIONS IN A STREET ALIGNMENT, SOME
ISSUES THAT SHOULD BE CONSIDERED ARE:

- O SAFETY OF TRANSIT RIDERS
- O ACCESS TO ADJACENT LAND USES
- O AFFECT ON TRAFFIC OPERATIONS
- O SPEED LIMITATIONS
- O AFFECT ON CURB USES SUCH AS PARKING

RAILROAD RIGHT-OF-WAY AVAILABILITY

ALIGNMENT ALTERNATIVE #1 - BN NORTHERN LINE

- 0 BN INDICATES ROW IRREGULAR--TYPICALLY 100 FEET WIDE BUT LESS IN SOME LOCATIONS
- 0 BN SAYS ROW NOT AVAILABLE FOR LRT USE
- 0 LINE IS BN'S PREFERRED ROUTE (IS CENTRAL LINK BETWEEN CHICAGO AND WEST COAST)
- 0 LINE CARRIES 70 TRAINS PER DAY (35 EACH WAY)
- 0 MOST OF LINE IS DOUBLE TRACKED BUT SOME SINGLE TRACK

ALIGNMENT ALTERNATIVE #2 - BN SOUTHERN LINE

- 0 BN SAYS INSUFFICIENT ROW AVAILABLE FOR LRT IN MOST LOCATIONS--A 25-FOOT WIDE STRIP AVAILABLE IN SOME LOCATIONS
- 0 LINE IS IMPORTANT LINK FOR BN, SOO LINE, AND C&NW BETWEEN ST. PAUL AND POINTS WEST AND NORTH.
- 0 LINE CARRIES 50 TRAINS PER DAY (25 EACH WAY)
- 0 MOST OF LINE IS DOUBLE TRACKED BUT SOME SINGLE TRACK

ALIGNMENT ALTERNATIVE #6 - SHORT LINE

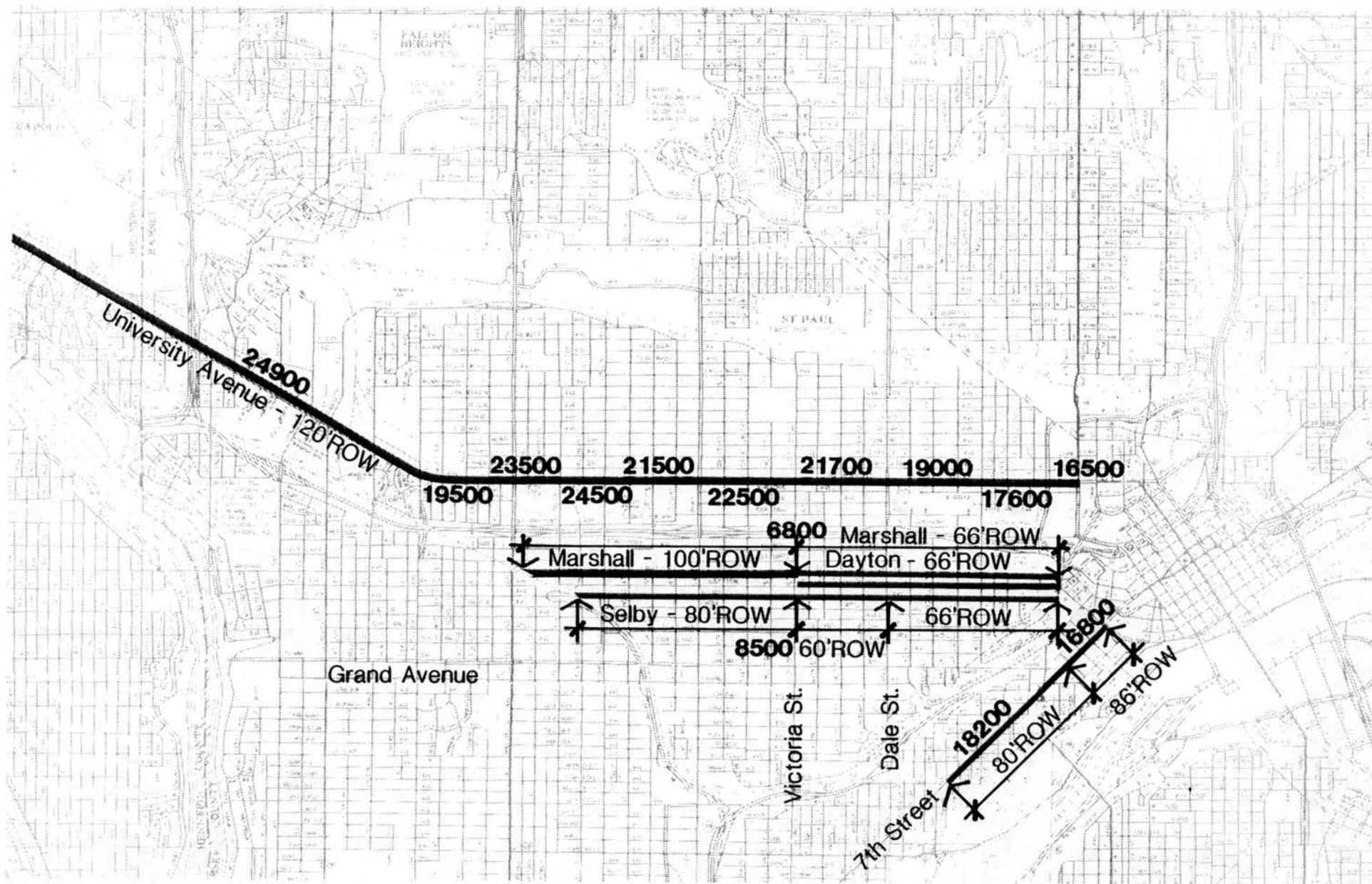
- 0 SOO LINE HAS FILED FOR ABANDONMENT OF LINE FROM WASHINGTON AVENUE TO WALDORF PAPERS
- 0 SOO LINE HAS SAID THEY ARE OPEN TO DISCUSSION OF JOINT USE OF ROW FROM WALDORF PAPERS TO WEST 7TH (FORD JUNCTION)
- 0 THIS SEGMENT CARRIES 10 TO 12 TRAINS PER DAY AND IS AMTRAK'S PREFERRED ROUTE
- 0 MOST OF LINE IS DOUBLE TRACKED
- 0 SOO LINE SAYS ROW FROM FORD JUNCTION TO DOWNTOWN ST. PAUL NOT AVAILABLE FOR LRT USE

MIDWAY CORRIDOR
LRT PLANNING ANALYSIS

BRW, Inc.
1/28/88

STREET RIGHT-OF-WAY WIDTHS

STREET	SEGMENT	ROW WIDTH (FEET)	TYPICAL STREET WIDTHS (FEET)
UNIVERSITY AVE.	O RICE ST. TO O WASHINGTON AVE.	120	94
MARSHALL AVE.	O SHORT LINE TO VICTORIA	100	52
	O VICTORIA TO SUMMIT	66	32
DAYTON AVE.	O VICTORIA TO SUMMIT	66	36
SELBY AVE.	O SHORT LINE TO VICTORIA	80	44
	O VICTORIA TO DALE	60	44
	O DALE TO SUMMIT	66	44
WEST 7TH ST.	O SHORT LINE TO GRAND	80	56
	O GRAND TO KELLOGG	86	56



Midway Corridor LRT Planning Analysis

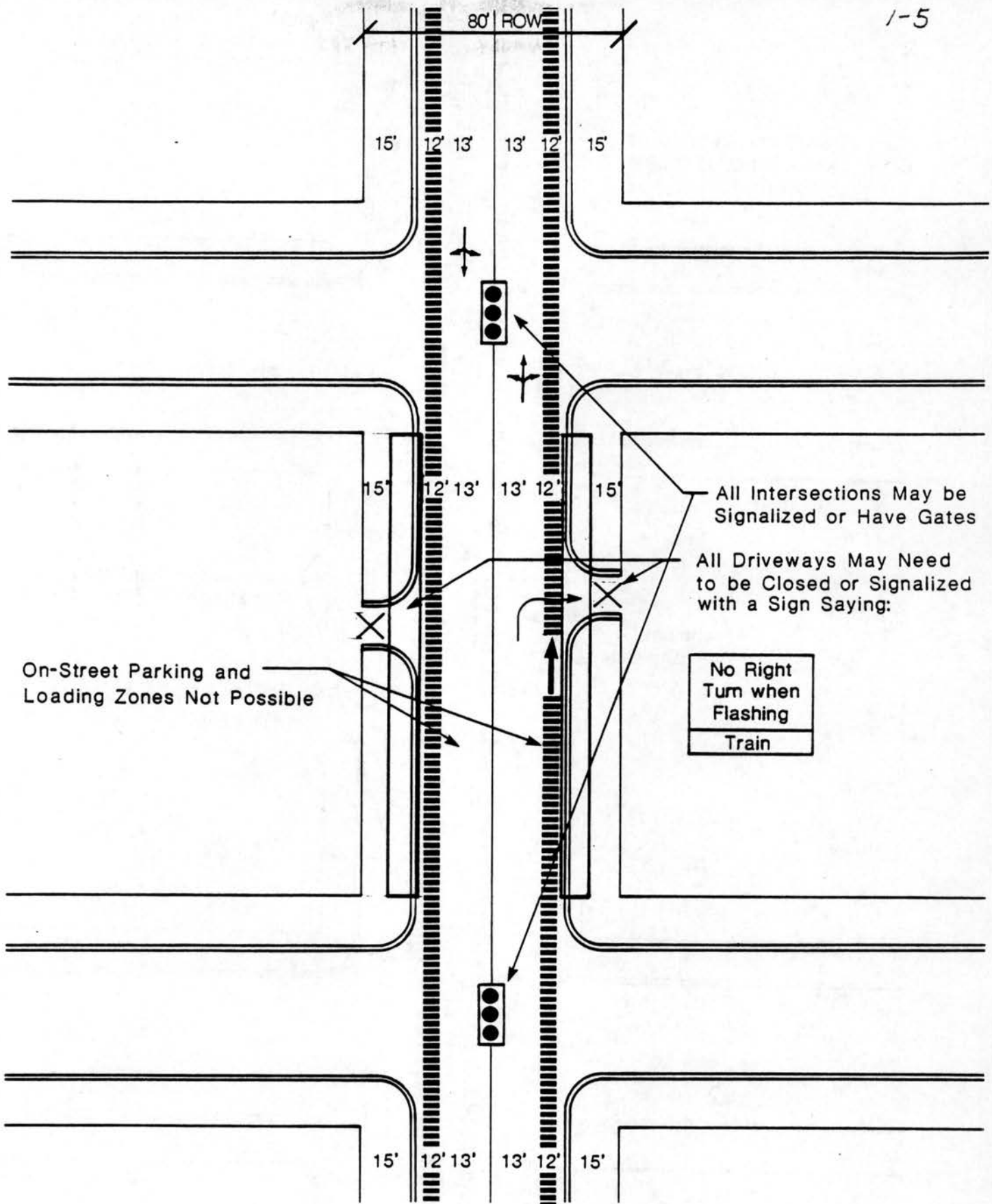
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Ramsey County RRA
Regional Rail Authority

Right of Way Widths and
1984 ADT's



BRW



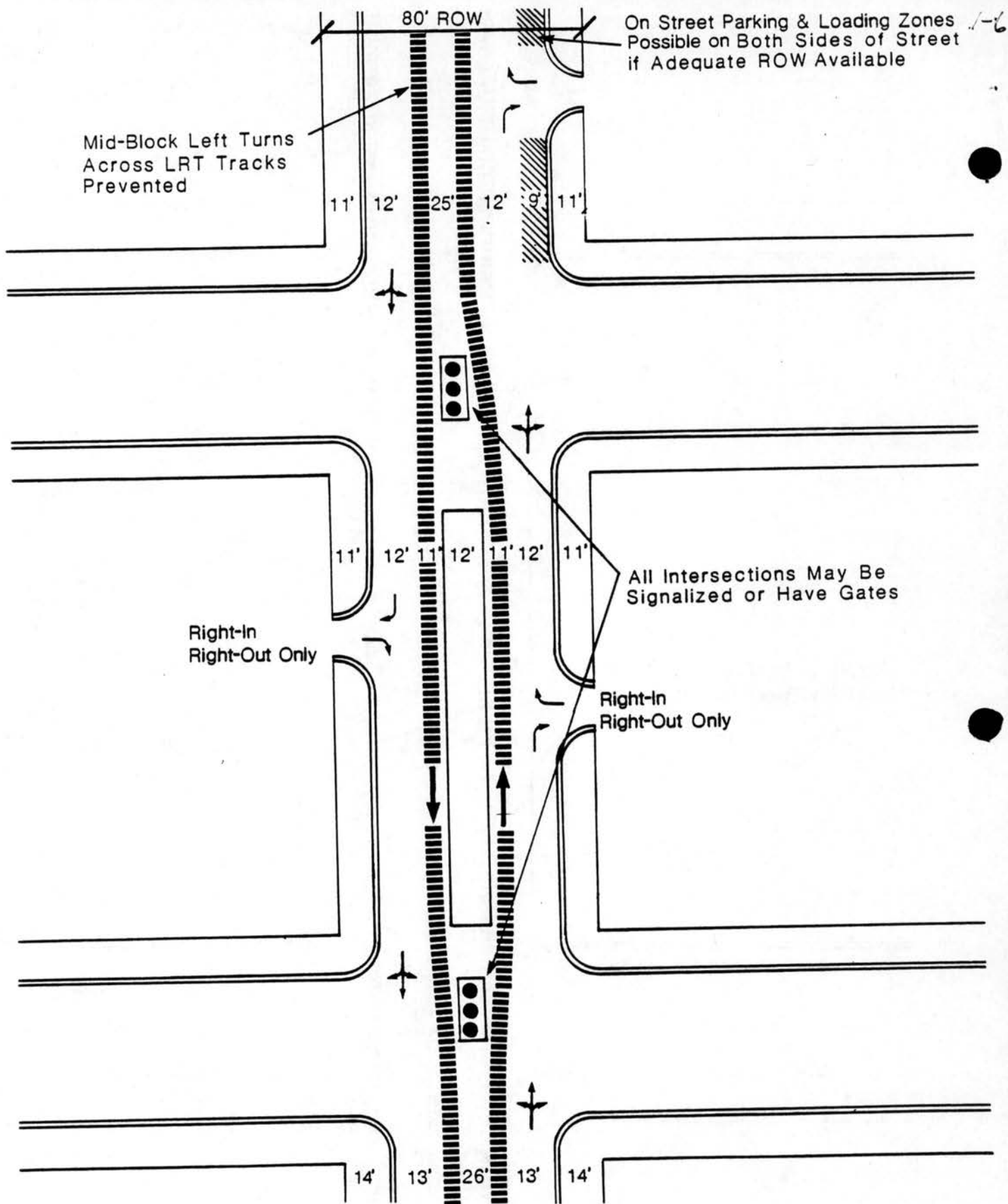
Midway Corridor LRT Planning Analysis

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REGIONAL TRANSIT BOARD

Ramsey County RRA
Regional Railroad Authority

Two-Way LRT in Curb
Lane of Street





Midway Corridor LRT Planning Analysis

RTB
REGIONAL TRANSIT BOARD

Two-Way LRT in Center
of Street

Ramsey County RRA
Regional Railroad Authority



On Street Parking & Loading Zones Possible on Opposite Side of Street if Adequate Right-of-Way Available

Driveways on LRT Side of Street May be Closed

Barrier to Separate LRT and Traffic

All Intersections May be Signalized or Have Gates

Driveways Possible on Side of Street Opposite LRT

On-Street Parking and Loading Zones Not Possible on LRT Side of Street

LRT on One Side of Street

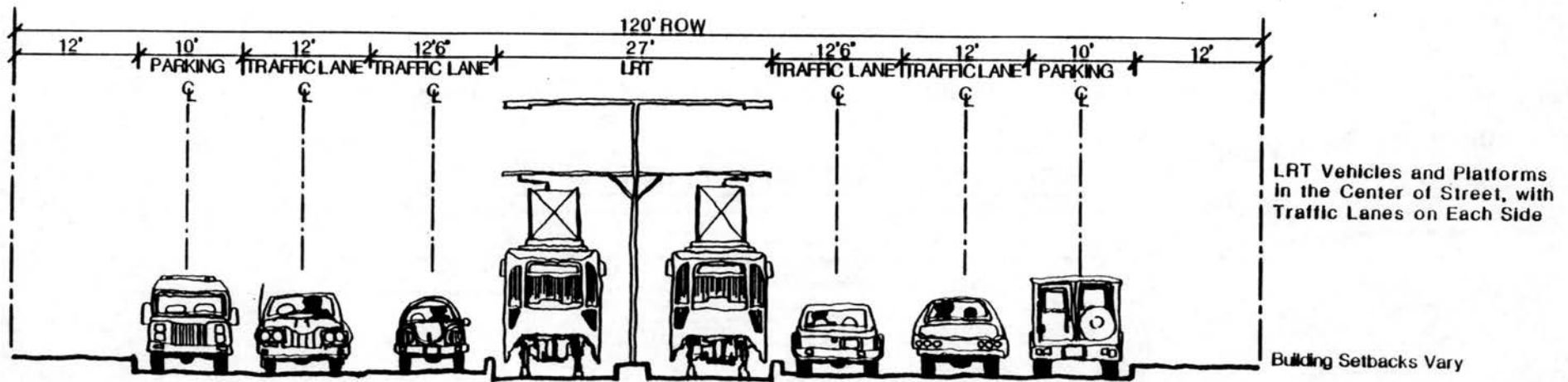


Midway Corridor LRT Planning Analysis

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Ramsey County RRA
Regional Railroad Authority

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UNIVERSITY AVE. WITH TWO-WAY LRT

Typical 120' Right-of-Way

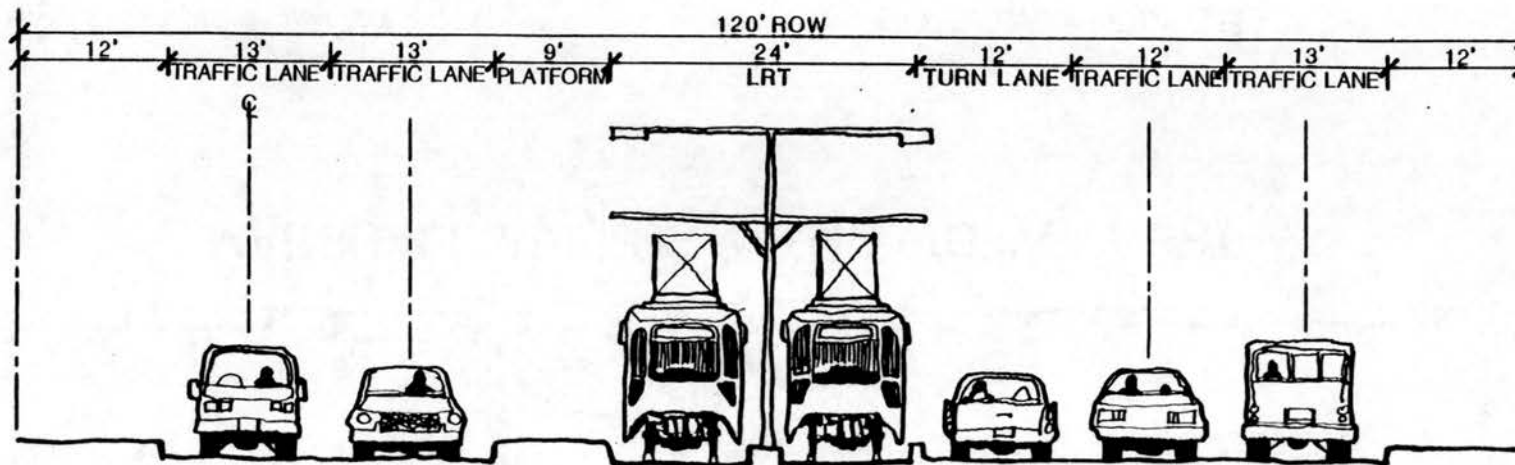


Midway Corridor LRT Planning Analysis

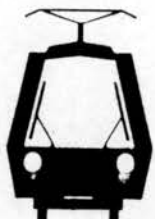
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UNIVERSITY AVE. AT STATION LOCATIONS

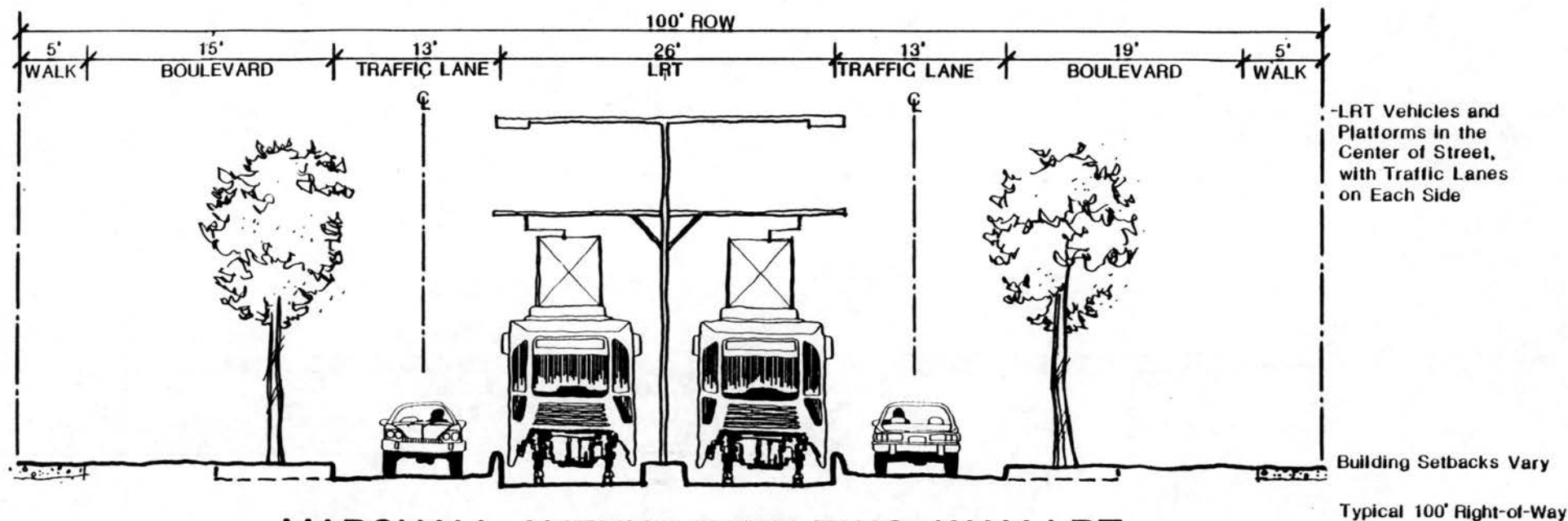


Midway Corridor LRT Planning Analysis

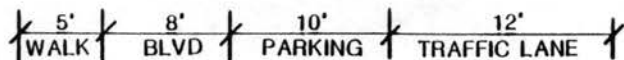
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Regional Railroad Authority

BRW



MARSHALL AVENUE WITH TWO-WAY LRT

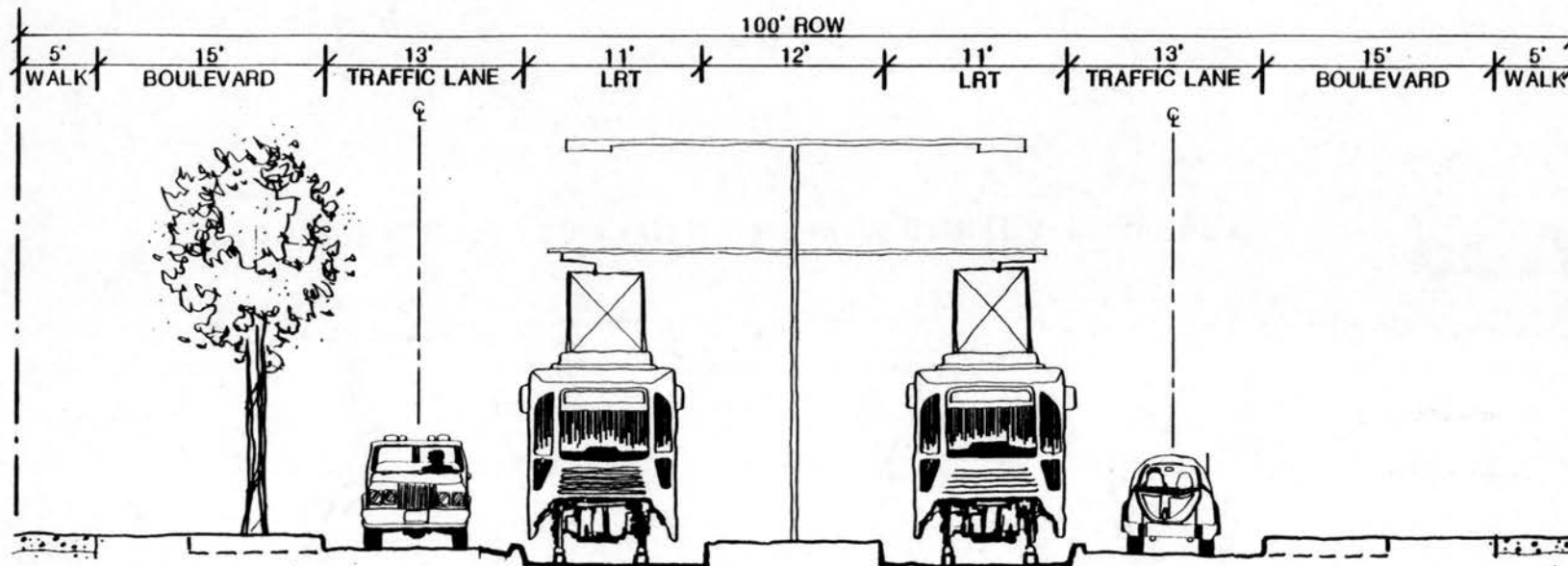


Midway Corridor LRT Planning Analysis

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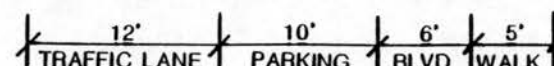
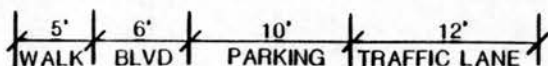


MARSHALL AVENUE AT LRT STATIONS

LRT vehicles and platforms
in the center of street, with
traffic lanes on each side

Building setbacks vary

Typical 100' right-of-way



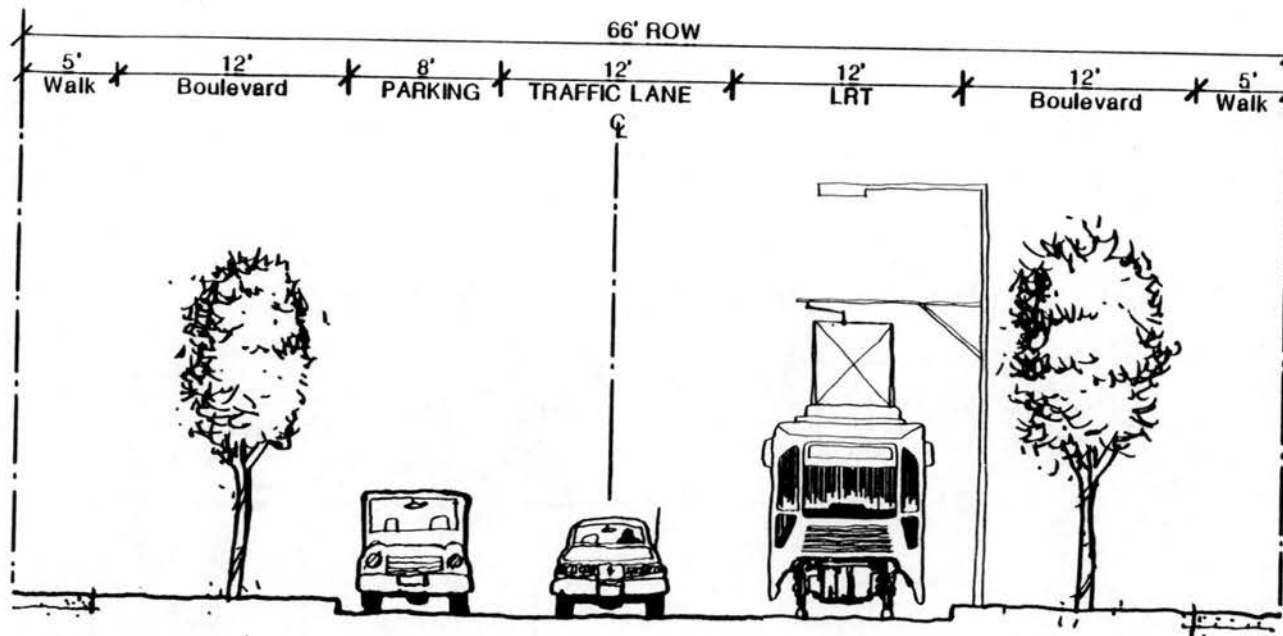
Midway Corridor LRT Planning Analysis

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Regional Railroad Authority

BRW

11-1



Typical 66' Right-of-Way

MARSHALL/DAYTON WITH ONE WAY CONTRA-FLOW LRT



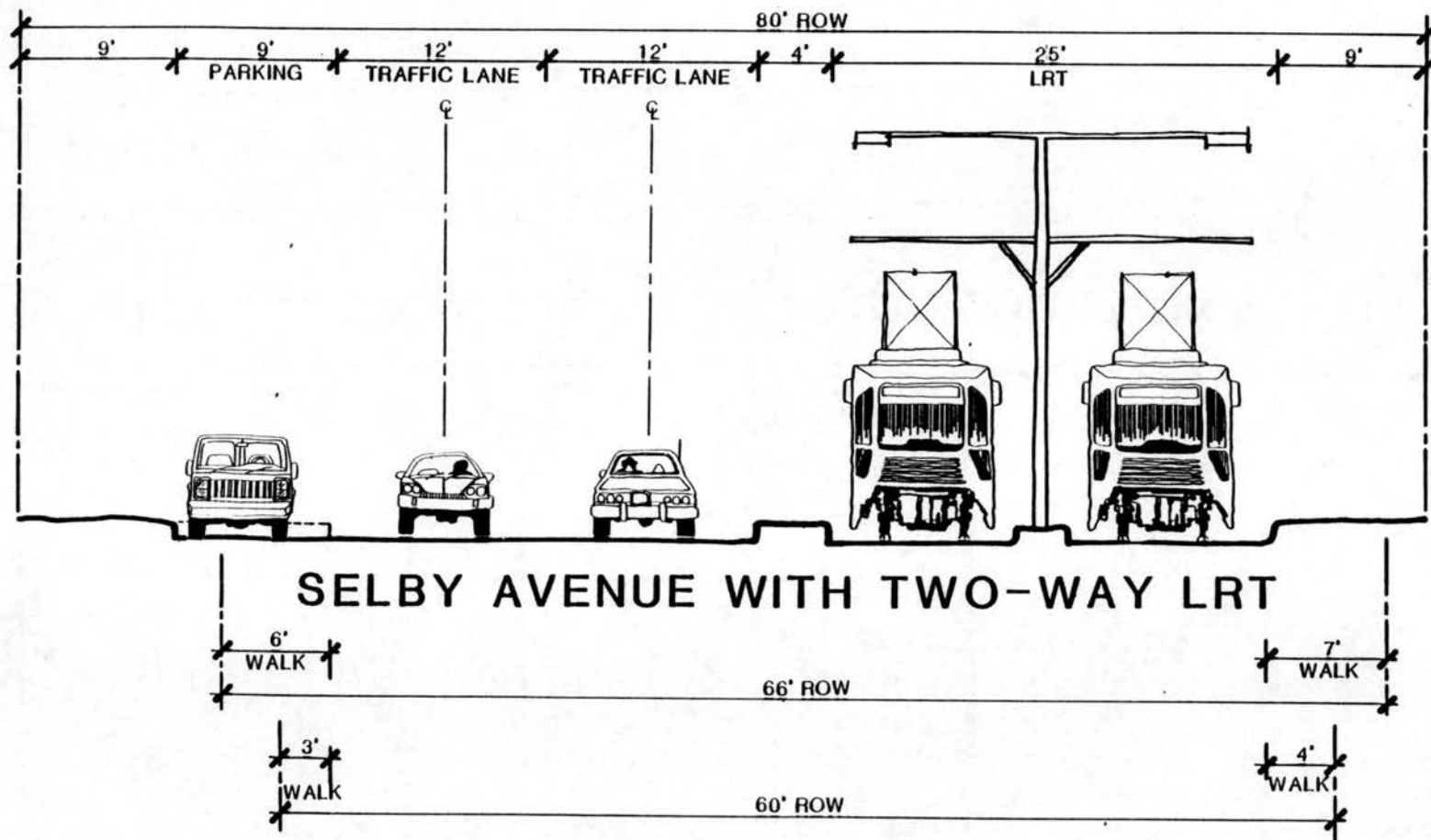
Midway Corridor LRT Planning Analysis

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Ramsey County RRA
Regional Rail Authority



1-12



— LRT vehicle and platforms
along one side of the street

Building setbacks vary

No Parking in 60'
or 66' ROW

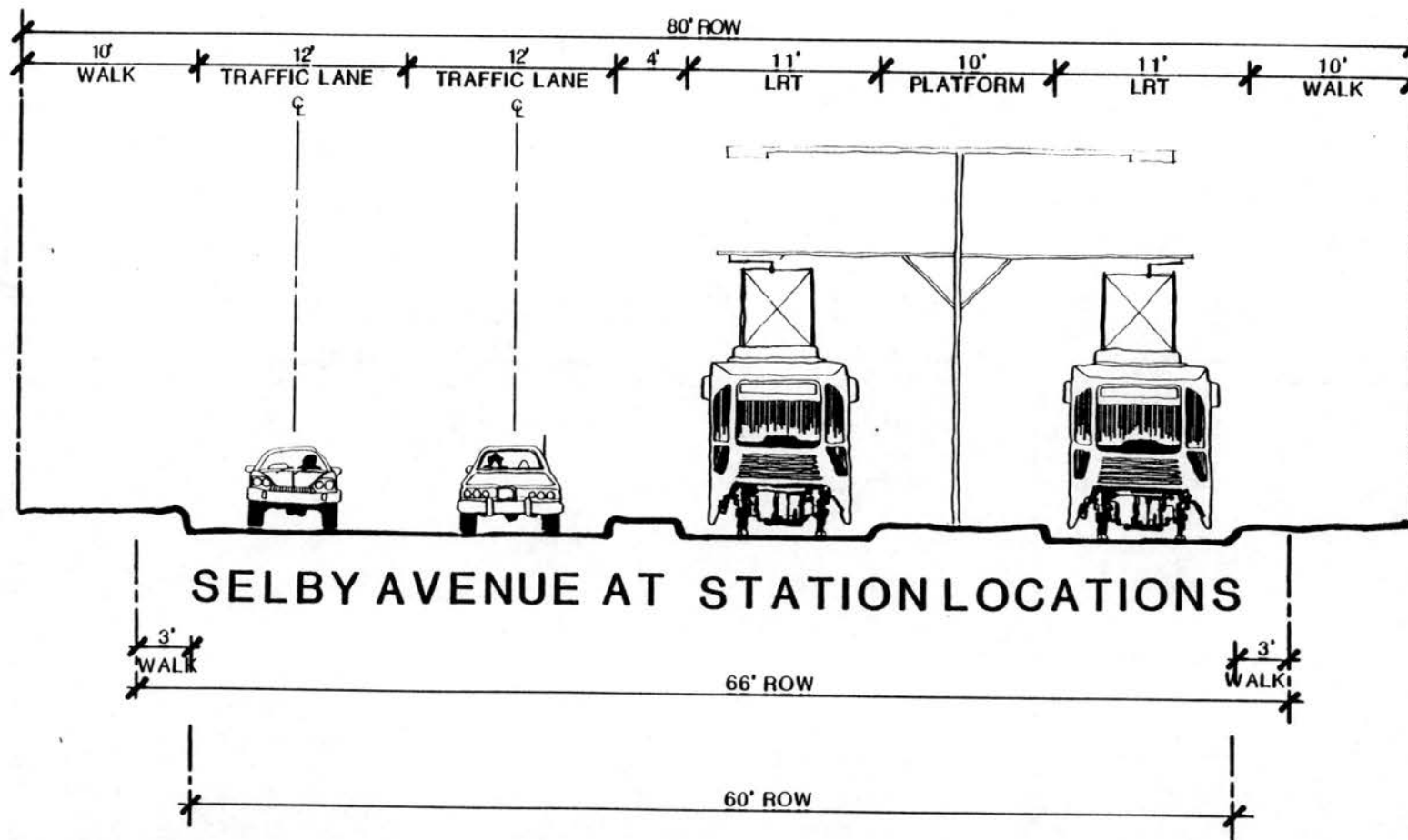


Midway Corridor LRT Planning Analysis

RTB
REGIONAL TRANSIT BOARD

Ramsey County RRA
Regional Railroad Authority

BRW



— LRT vehicle and platforms
along one side of the street

— Loading platform in
between vehicles only

Building setbacks vary



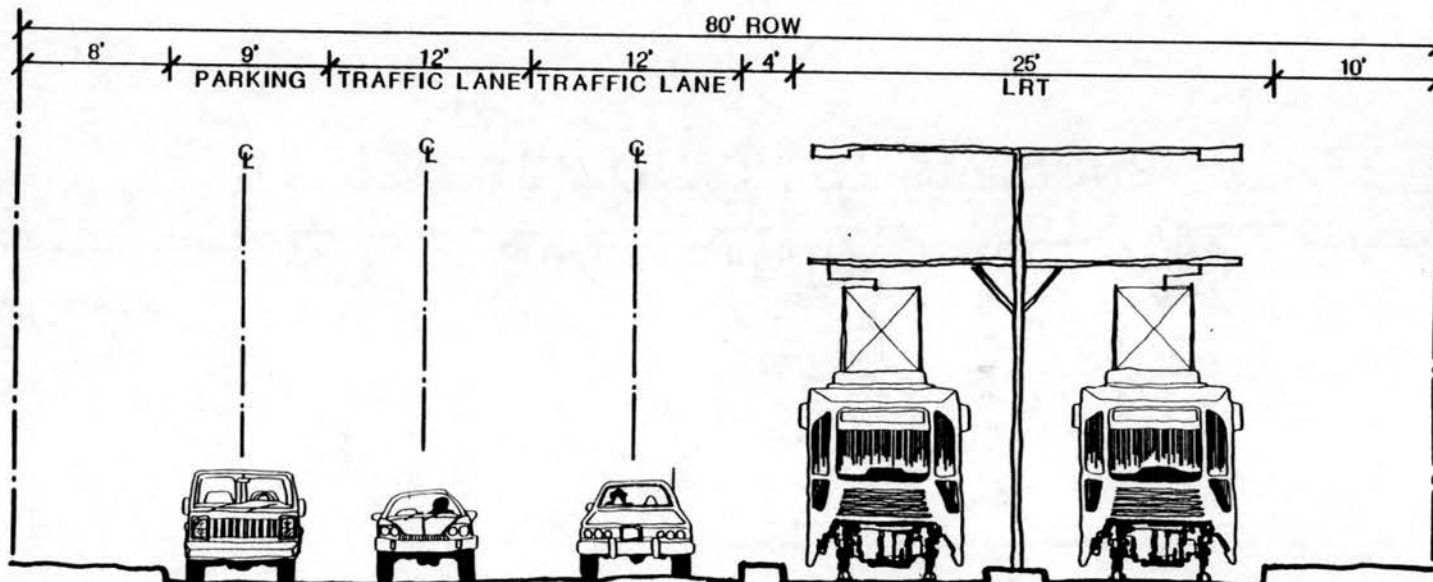
Midway Corridor LRT Planning Analysis

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Regional Rail Authority

BRW

41-1



— LRT Vehicles and Platforms
Along One Side of Street

WEST 7TH WITH TWO-WAY LRT

Building Setbacks Vary

Typical 80' Right-of-Way

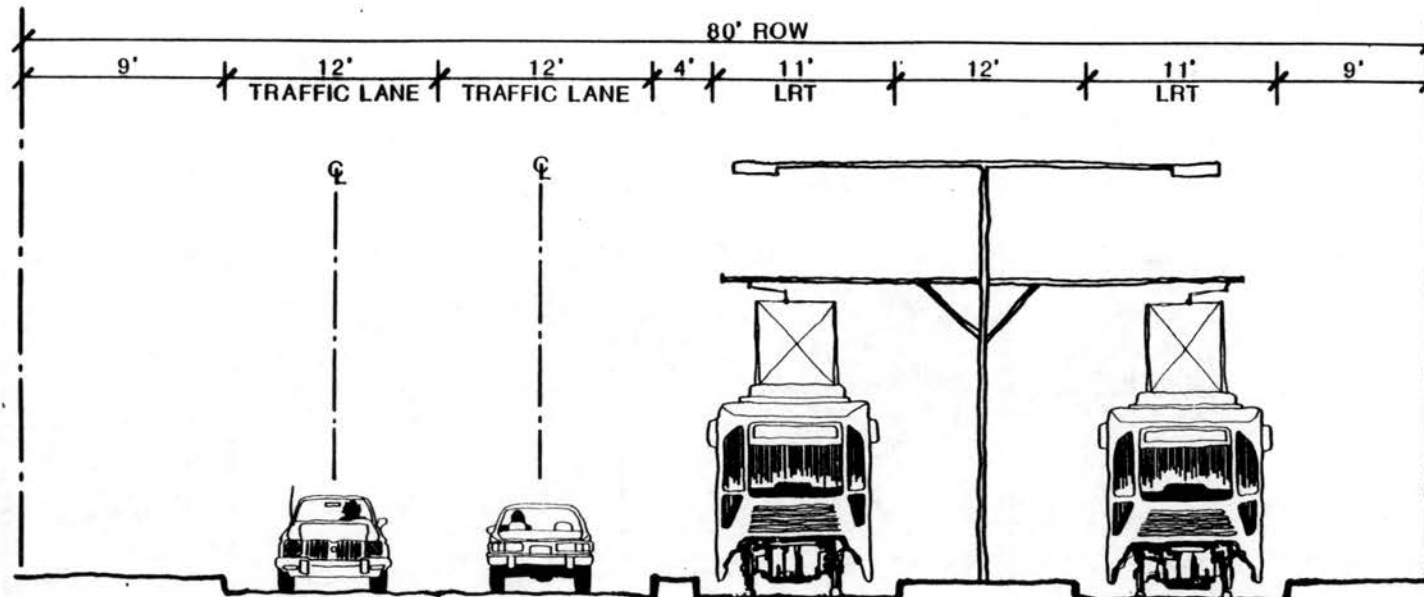


Midway Corridor LRT Planning Analysis



Ramsey County RRA
Regional Railroad Authority





WEST 7TH AT LRT STATIONS

-LRT Vehicles and Platforms
Along One Side of Street

-Loading Platform in
Between Vehicles Only

Building Setbacks Vary
Typical 80' Right-of-Way



Midway Corridor LRT Planning Analysis



Ramsey County RRA
Regional Rail Authority



MIDWAY CORRIDOR
LRT PLANNING ANALYSIS

BRW, INC.
2/1/88

STREET/HIGHWAY CAPACITY AVAILABILITY

STREET	CURRENT VOLUME (1986/87 ADTS)	CURRENT CAPACITY (DAILY)	CURRENT VOLUME/ CAPACITY	CAPACITY W/LRT	VOLUME/ CAPACITY W/LRT
UNIVERSITY AVENUE	17,100 - 26,250	30,000	0.65 - 0.88	26,000	0.66 - 1.01
MARSHALL	3,600 - 7,300	22,500	0.16 - 0.32	11,500	0.31 - 0.63
SELBY AVENUE	3,700 - 6,600	11,500	0.32 - 0.57	11,500	0.32 - 0.57
WEST 7TH STREET	15,000 - 21,000	22,500	0.67 - 0.93	11,500	1.30 - 1.82

VOLUME/CAPACITY > 0.90 IS TYPICALLY CONSIDERED AN UNACCEPTABLE
LEVEL OF SERVICE IN AN URBAN AREA.

MIDWAY CORRIDOR
LRT PLANNING ANALYSIS

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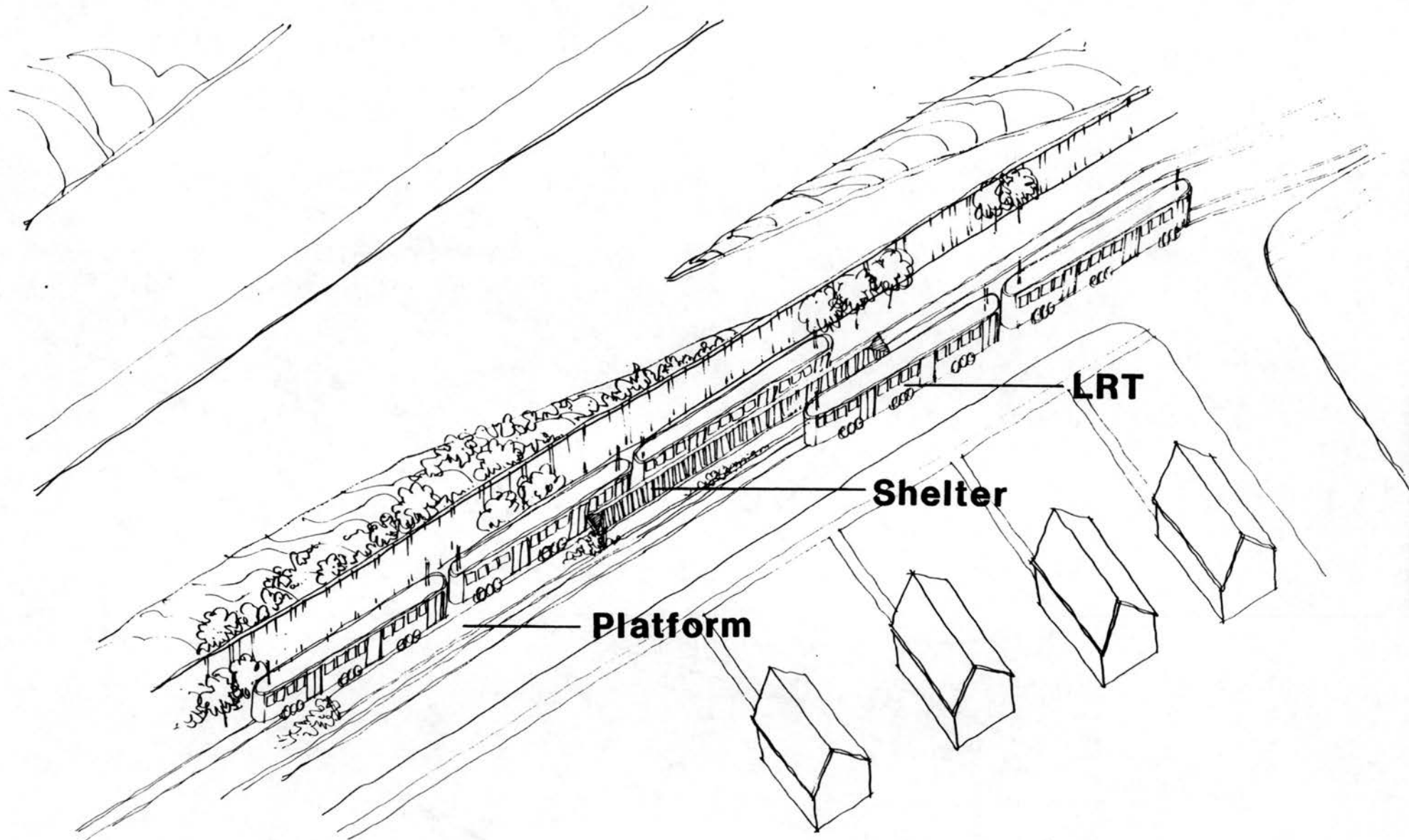
VOLUME/CAPACITY RATIOS AND LEVELS OF SERVICE

<u>VOLUME/CAPACITY RATIO</u>	<u>LEVEL OF SERVICE</u>
0.00 - 0.35	A
0.35 - 0.50	B
0.50 - 0.75	C
0.75 - 0.90	D
0.91 - 1.00	E
> 1.00	F

LEVEL OF SERVICE "E" REPRESENTS CAPACITY SITUATION.

LEVEL OF SERVICE "F" IS FORCED FLOW.

LEVEL OF SERVICE "D" IS MINIMUM ACCEPTABLE LEVEL OF SERVICE
IN AN URBAN AREA.



Midway Corridor LRT Planning Analysis

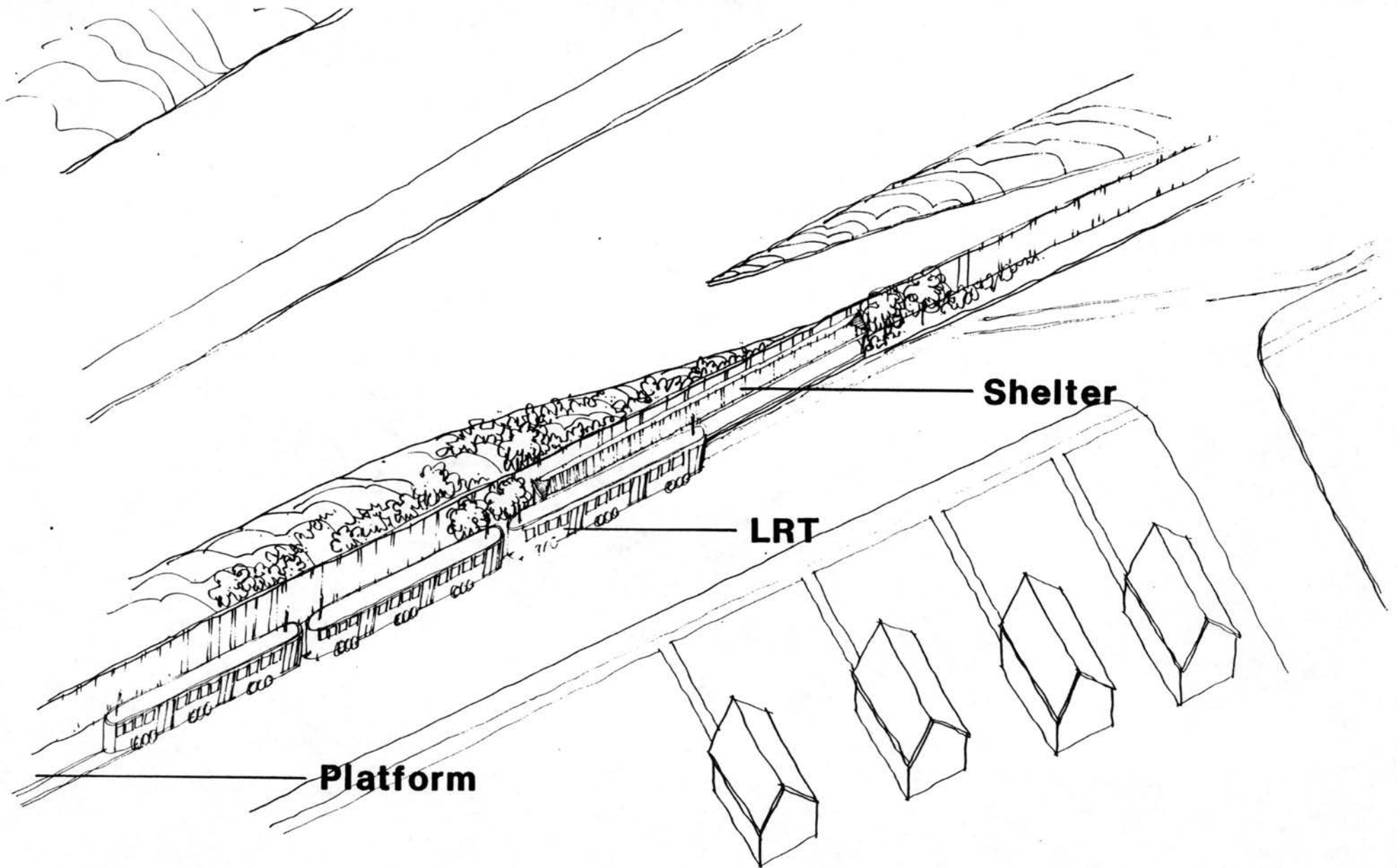
RTB
REGIONAL TRANSIT BOARD

Ramsey County RRA
Regional Railroad Authority

Two-Way LRT
I-94 Frontage Road

BRW

6/1-1



Midway Corridor LRT Planning Analysis

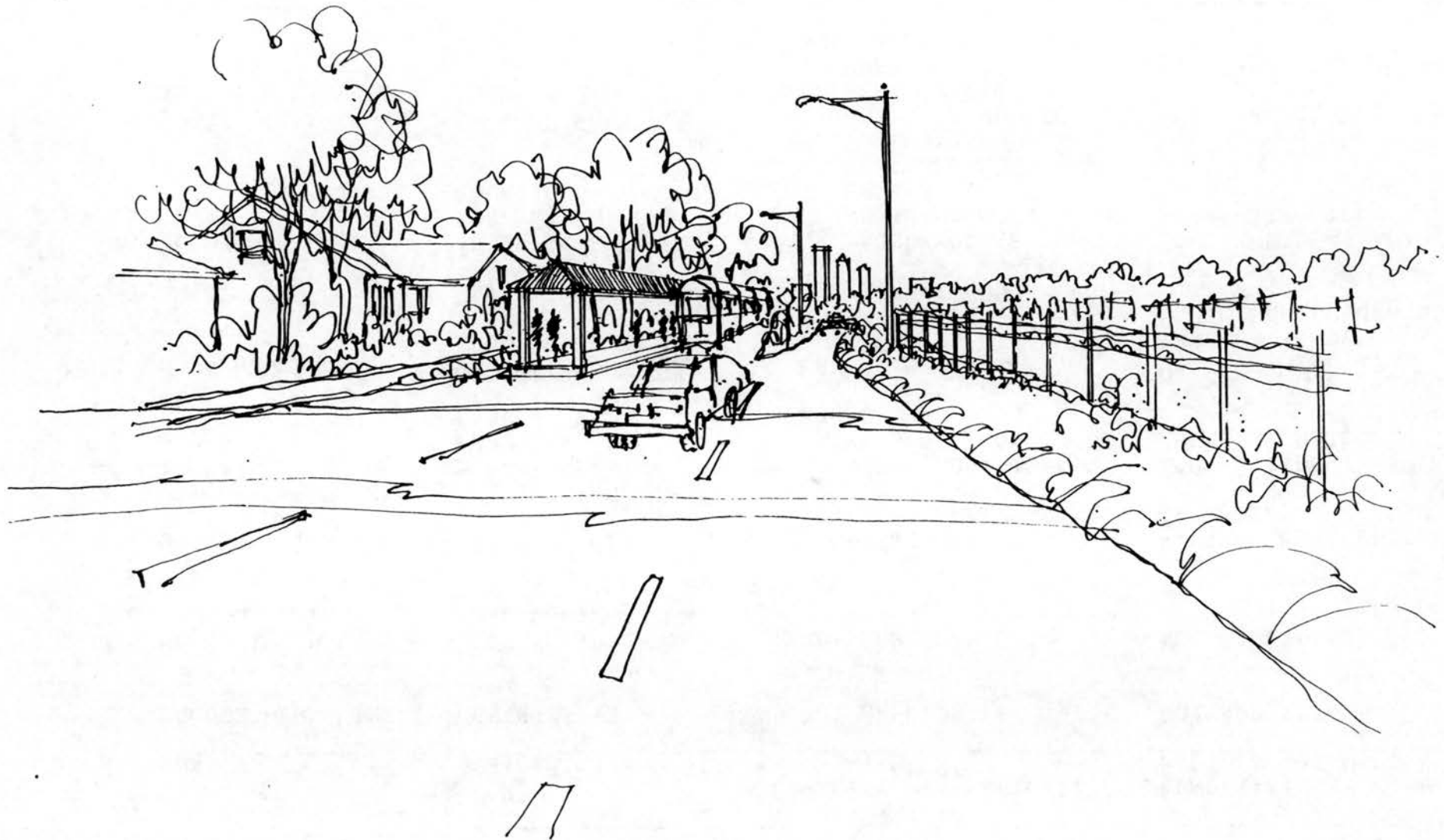
RTB
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One-Way LRT
I-94 Frontage Road



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Midway Corridor LRT Planning Analysis

RTB
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Ramsey County RRA
Regional Railroad Authority

Typical I-94 Frontage Road
with One-Way LRT
Looking West

BRW

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MIDWAY CORRIDOR
LRT PLANNING ANALYSIS

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SUMMARY OF SCREEN I ANALYSIS

ALTERNATIVE	ROW AVAILABILITY	C R I T E R I A	
		TRAFFIC CAPACITY AVAILABILITY WITH LRT	COMPATIBILITY WITH RESIDENTIAL USES
1. BN NORTHERN LINE	RESTRICTIVE	NOT APPLICABLE	NOT APPLICABLE
2. BN SOUTHERN LINE	LESS RESTRICTIVE THAN NORTHERN BN LINE	NOT APPLICABLE	NOT APPLICABLE
3. UNIVERSITY AVE.	120 FOOT ROW	REQUIRES MORE DETAILED ANALYSIS	MINIMAL RESIDENTIAL IMPACTS
4. I- 94	SIDE SLOPES OR FRONTAGE ROADS AVAILABLE	REQUIRES ADDITIONAL ANAYSIS OF FRONTAGE ROADS	SOME RESIDENTIAL AREAS AFFECTED
5. MARSHALL AVE.	ONLY 66 FOOT ROW ALONG HALF OF LINE NEED TO PAIR WITH DAYTON	CAN ACCOMMODATE CURRENT TRAFFIC VOLUMES AT ACCEPTABLE LOS	HALF OF LINE IS THROUGH SINGLE FAMILY NEIGHBORHOOD
5A. SELBY AVE.	INSUFFICIENT ROW FOR LRT IN SOME LOCATIONS	CAN ACCOMMODATE CURRENT TRAFFIC VOLUMES AT ACCEPTABLE LOS	SOME RESIDENTIAL AREAS AFFECTED
6. SHORT LINE/ WEST 7TH STREET	ONLY 80 FOOT ROW ON WEST 7TH	CANNOT ACCOMMODATE CURRENT TRAFFIC VOLUMES AT ACCEPTABLE LOS	NOT APPLICABLE

MIDWAY CORRIDOR
LRT PLANNING ANALYSIS

BRW, Inc.
1/28/88

DEVELOPMENT RESPONSE IN OTHER CITIES

PORTLAND

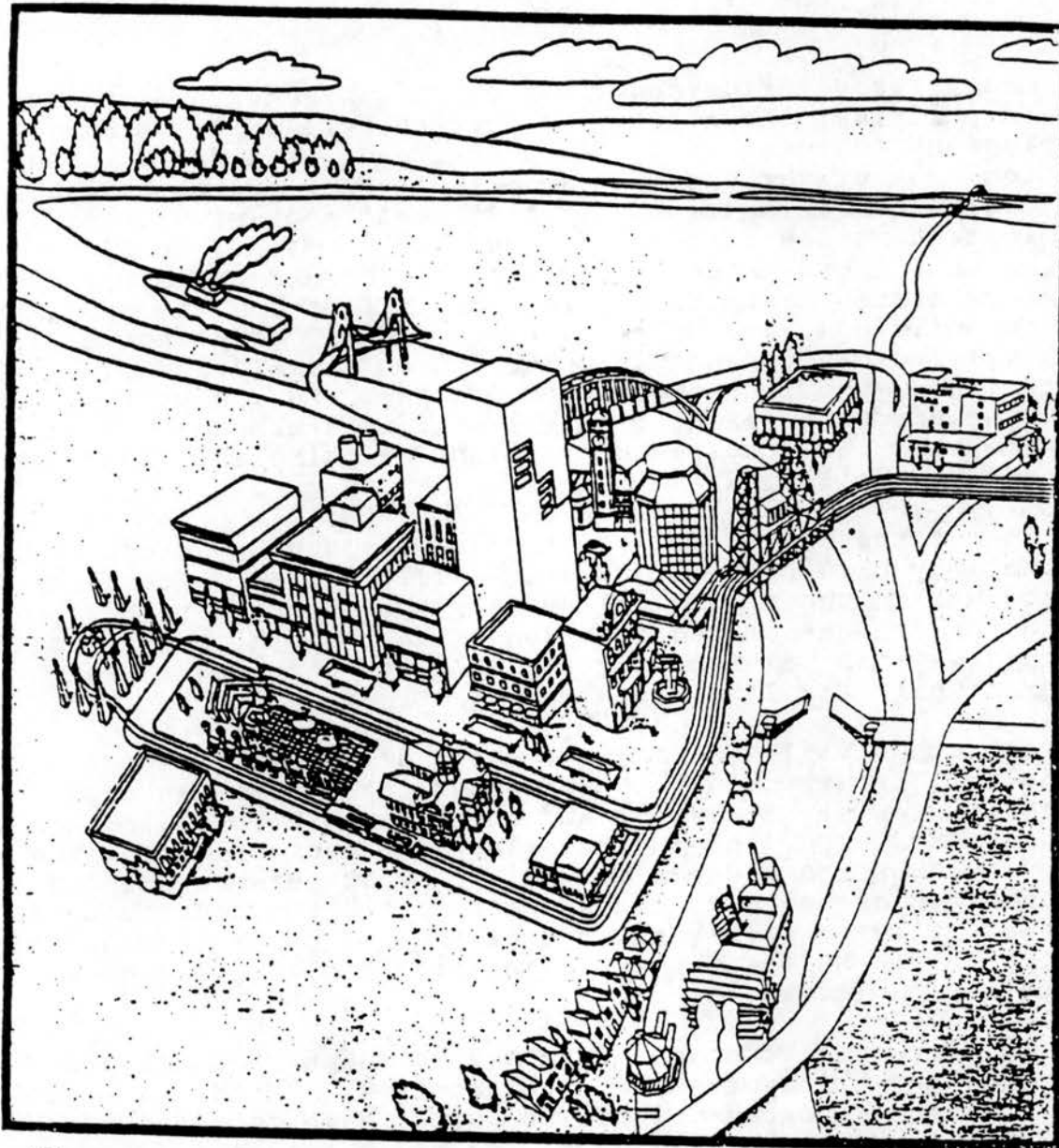
- O LRT HAS INFLUENCED A VARIETY OF PRIVATE INVESTMENTS
- O GREATEST DEVELOPMENT RESPONSE IS IN DOWNTOWN AREA
- O LRT IS NOT THE ONLY REASON MUCH OF THIS DEVELOPMENT OCCURRED. LRT WAS LOCATED IN MIDDLE OF KEY DEVELOPMENT AREAS
- O DEVELOPMENT IMPACT ON LINE IS PRIMARILY AT STATION LOCATIONS

SAN DIEGO

- O ACTIVE PUBLIC POLICY FOR JOINT DEVELOPMENT AT STATIONS
- O FEATURES THAT HELP OR HINDER JOINT DEVELOPMENT INCLUDE:
 - NEED TO ENCOURAGE RELATIVELY HIGH DENSITY DEVELOPMENT AROUND LRT STATIONS
 - "BACK DOOR" OF INDUSTRIAL AND MANUFACTURING USES IN FREIGHT RAIL CORRIDOR HINDERS JOINT DEVELOPMENT
 - CITY REDEVELOPMENT EFFORTS CAN ENCOURAGE JOINT DEVELOPMENT
 - AVAILABLE DEVELOPABLE LAND IS ALSO IMPORTANT
- O AN EXAMPLE OF JOINT DEVELOPMENT ON SAN DIEGO LINE IS THE MTS TOWER: A TRANSIT CENTER AND 10-STORY OFFICE/ MIXED USE FACILITY

GREAT EXPECTATIONS

An Early Assessment of the
Development Impacts of MAX



TRI-MET
March 1987

Public Services Division
G.B. Arrington, Jr.
Judy Davis

SUMMARY

Portland's Metropolitan Area Express (MAX) is more than a transportation investment. The history of the project reveals a belief that investments in transportation can be coordinated with land use planning to make a difference in how the region grows. These expectations are being realized in the light rail corridor today.

MAX has already influenced a variety of private investments and public policies. At startup in September 1986, investment in new development adjacent to light rail already exceeded the \$214 million cost of the project. (See table one) Plans have been made for additional investments worth at least another \$200 million. Development ranges from small remodeling projects to high rise office buildings. Activity is greatest downtown where light rail has accelerated historic renovations, influenced the design of office buildings, and helped make new retail development feasible. Rail related development is occurring on a smaller scale in Lloyd Center, Hollywood, Rockwood, and Gresham. Public policy changes have included the rezoning of all station areas outside of downtown and the preparation of plans to stimulate investment in Gresham and Hollywood.

MAX is not the reason much of this development occurred. It would undoubtedly have occurred anyway. A critical early decision was to locate MAX in the middle of key development areas rather than along the fringes as had been done with transit in other cities. In this way MAX was incorporated into new development which occurred while the line was under construction.

As with other rail systems, the major development response to light rail is expected to occur after the system has been in operation for several years and its ridership potential has been demonstrated. Development has also been constrained by the slow recovery from the 1981-82 recession. That recession ended a boom in downtown office construction and halted the transition from single family to multi-family dwellings in parts of midcounty. Employment in Multnomah County is still 25,000 jobs below prerecession levels.

MAX is part of a conscious strategy to shape regional growth by coordinating transportation investments with land use policies. For more than a decade, land use issues have consistently been included in the light rail decision making process. Land use considerations influenced the decision to substitute transit for freeway, the choice of the light rail mode, and the selection of route and station locations. Concern for the land use impacts of light rail resulted in a \$1.2 million regional planning program. That program has laid the foundation for development along the

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line by determining market potentials, planning for the urban fit of the project, and rezoning station areas.

THE DEVELOPMENT RESPONSE TO MAX

The greatest development impacts of light rail have occurred in downtown Portland. First Avenue, in particular, has benefited because MAX links it directly to the traditional retail core. MAX has aided downtown by improving accessibility, increasing visibility and pedestrian traffic, and providing a distinct identity. Private investors have reacted to light rail by improving the appearance of their buildings, accelerating investments in historic renovations, developing new retail space, and redesigning office buildings to interface with light rail. Virtually every parcel of vacant land adjacent to light rail in downtown has changed hands, been developed, or had development plans announced since the decision to build the project. Downtown businesses are reporting higher sales and increased weekend foot traffic because of MAX. At the Galleria, September 1986 sales were up 18% over last year. By Christmas, seasonal sales were reported up 50%. Galleria manager Micki Natio, thinks the improvement is largely due to light rail.

The city of Portland is involved in two major downtown projects related to light rail. The city completed Pioneer Square, a central public square which includes two light rail stations. The city and the Rouse Company are also developing Pioneer Place, a four block retail, office and hotel complex at the transit hub of downtown. The mixed use project will be adjacent to the Transit Mall and two light rail stations.

Along Holladay Street, across the Willamette River from downtown, light rail influenced the sale of The Lloyd Center and the siting of the voter approved \$85 million regional convention center at Union and Holladay. Tri-Met anticipates the need for an additional MAX station to serve the center. Melvin Simon and Associates cited MAX as a factor in their decision to buy the 1.3 million square foot Lloyd Center Mall. They have also announced their intentions to expand and remodel the 30 year old mall. In addition, the major land owner and developer in the corridor, Lloyd Center Corporation, has made plans to link future office development with light rail.

In the Hollywood District, MAX was the catalyst for \$2 million of traffic & pedestrian circulation improvements and plans to increase the viability of this business district.

A joint development project at the Gateway Transit Center has been planned by the YMCA and Tri-Met on surface and air rights adjacent to the station. Controversy surrounding the YMCA's tax exempt status caused the project to be put on hold. This project, if it

proceeds, should stimulate further transit-related developed at this highly accessible site.

New higher-density zoning tailored specifically to light rail has been implemented. Along East Burnside Street, the transit zoning anticipates long term focusing of residential suburban growth in the transit corridor. To accommodate future development a sewer line was laid under Burnside Street during light rail construction.

And, at the end of the line, Gresham's new downtown plan is built around light rail. Gresham businesses have been seeing many new customers since the project opened, and plans have been made to strengthen the historical retail core. Light rail also supported Fujitsu Electronics' choice of a Gresham site for a \$125 million dollar semiconductor plant.

CONCLUSIONS

MAX has influenced investments in historic renovations, the siting of the regional convention center, the sale of the regions largest shopping center, the siting of an electronics plant outside the existing westside concentration, the design of buildings and public places, and zoning throughout the corridor. Major development has occurred in downtown Portland and other projects have scattered throughout the corridor. These investments occurred or were underway before the opening of MAX despite a sluggish regional economy and the expectation that the major development response would occur after MAX has been in operation for several years.

Portland is demonstrating that light rail can be linked with land use and development planning to shape regional growth. Portland had great expectations for light rail, and these expectations are already being fulfilled.

TABLE ONE

2-6

VALUE OF PROJECTS UNDER CONSTRUCTION OR COMPLETED

The following projects represent a partial inventory of projects immediately adjacent to MAX which were under construction or completed since the decision to construct MAX in 1979

NEW PROJECTS

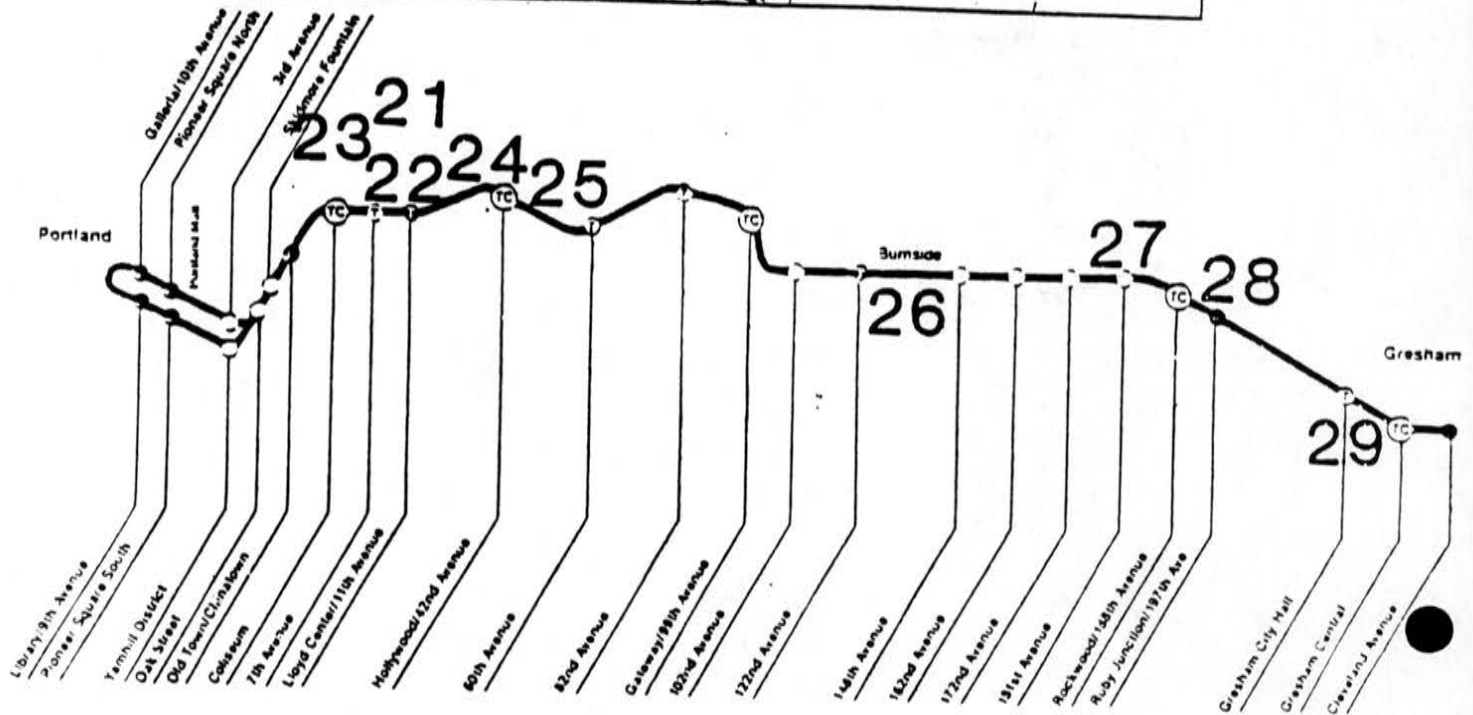
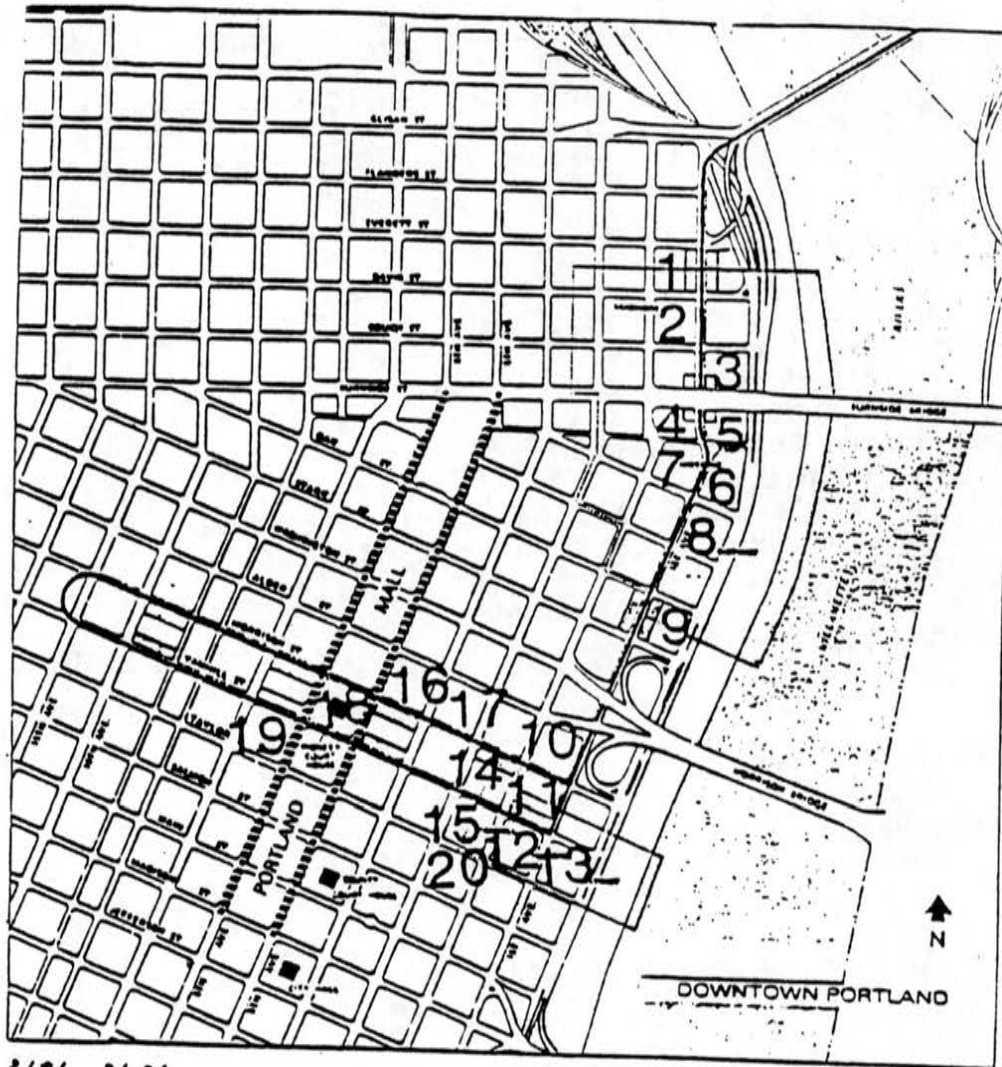
Pacific First Federal Center	\$14,000,000
One Pacific Square	23,000,000
One Financial Center	42,000,000
Yamhill Market Place	6,000,000
Pioneer Courthouse Square	8,000,000
Moyer Theatre	3,000,000
Bonneville Power Administration Offices	55,000,000
Transamerica Title Insurance Offices	1,000,000
Plaza 181	-----
Kaiser Permanente Rockwood Clinic	4,600,000
Gresham Town Fair	<u>30,000,000</u>
Total	\$186,500,000

REHABILITATIONS

Fleischner Block	\$ 2,500,000
Blagen Block	2,000,000
Skidmore Fountain Building	4,500,000
New Market Theatre and Village	10,000,000
Lawrence Building	2,600,000
Willamette Block	4,000,000
Thomas Mann Building	2,000,000
Centennial Block	3,500,000
Yamhill Plaza Building	2,000,000
Kress Building	2,000,000
Caplans Sporting Goods	500,000
Elks Lodge	500,000
Directors Furniture Building	<u>5,600,000</u>
Total	\$41,700,000
TOTAL	\$228,800,000

New Development Adjacent To MAX

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PARTIAL LIST OF DEVELOPMENT ADJACENT TO MAX

UNDER CONSTRUCTION OR COMPLETED

Downtown

1. One Pacific Square, 220 N.W. Second
\$23 million office building completed 1983
224,000 sq ft
2. Fleishner Block, 107 N.W. Couch
\$2.5 million renovation began in 1986
50,000 sq ft of retail and office
3. Blagen Block, 78 N.W. Couch
\$2 million renovation completed in 1981
8,000 sq ft retail; 25,000 sq ft office
4. Storefront on bldg immediately south of Burnside Bridge
added in 1986.
5. Skidmore Fountain Building (formerly Packer Scott), 28 S.W. 1st.
\$4.5 million renovation in 1986 opened with light rail
20,000 sq ft retail; 21,000 sq ft office.
6. Ankeny Park, 1st and Ash
Refurbished in 1986
7. New Market Theatre and Village, 50 S.W. 2nd
\$10 million renovation of three buildings opened in 1983
40,000 sq ft retail, 85,000 sq ft office
8. The Pine Street Building, 50 S.W. Pine
Built in 1981
2,500 sq ft retail, 7,500 sq ft office
9. Lawrence Building, 306 S.W. First
\$2.6 million renovation completed in 1986
40,000 sq ft retail and office
10. One Financial Center, 1st and Morrison
\$42 million office building began construction in 1986
350,000 sq ft
11. Willamette Block, 722-738 S.W. 2nd
\$4 million renovation and addition of 4th floor in 1983
8,000 sq ft retail; 24,000 sq ft office

12. Thomas Mann Building, 140 S.W. Yamhill
\$2 million renovation and addition in 1981
14,000 sq ft of retail, office and residential space
13. Yamhill Market Place, 110 S.W. Yamhill
\$6 million of new retail space opened in 1982
77,000 sq ft
14. Centennial Block, 210 S.W. Morrison
\$3.5 million renovation completed in 1985
12,000 sq ft. retail, 32,000 sq ft office
15. Yamhill Plaza Building (formerly Moy Building), 204-218 S.W. Yamhill
\$2 million renovation completed in 1986
8,000 sq ft retail, 25,000 sq ft office
16. Kress Building, 622 S.W. 5th
\$2 million renovation completed in 1986
70,000 sq ft retail and office
17. Caplans Sporting Goods, 625 S.W. 4TH
\$500,000 renovation in 1986
23,000 sq ft retail
18. Pioneer Courthouse Square
\$8 million one block public square opened in 1984
19. Pacific First Federal, 811 S.W. 6th
\$14,000,000 renovation and new construction opened in 1980
314,000 sq ft.
20. Director Furniture Building, 804 S.W. 3rd
\$5.6 million renovation underway
90,000 sq. ft. office and retail

Lloyd Center

21. Lloyd Center Red Lion Inn, 1000 S.E. Multnomah
Remodeling and addition of 530 rooms in 1981
22. Moyer Theatre, 16th and Multnomah
\$3 million 10-screen theatre - opened winter 1986
23. Bonneville Power Administration offices
\$55 million office building under construction, to open March 1987
750,000 sq ft.

Hollywood

- 24. Elk's Lodge, 4121 N.E. Halsey
\$500,000 renovation of former store completed in 1986
- 25. Gas station converted to convenience store in 1986

Burnside

- 26. Transamerica Title Insurance Company Main Offices, 12360 E. Burnside
\$1 million office building constructed in 1980
17,000 sq ft
- 27. Plaza 181, 181st and Burnside
strip commercial (6 stores) completed in 1986
- 28. Kaiser Permanente Rockwood Medical Offices, 19500 S.E. Stark
\$4.6 million clinic completed in 1985

Gresham

- 29. Gresham Town Fair
\$30 mil. community shopping center under construction in 1986
276,000 sq ft in two phases (Phase I - 216,000 sq ft)



METROPOLITAN AREA EXPRESS
MAX
First Six Months of Service
(Sept 5, 1986 - March 5, 1987)

FACT SHEET

The following statistics reflect six months of performance gains on Tri-Met's entire transit service, including higher ridership, improved productivity and increased morale. Between March of 1986 and November of 1986 Tri-Met's rating by the general public as to what kind of job the agency was doing went from 49 percent to 65 percent in the "good" and "excellent" categories.

PATRONAGE/SERVICE:

Ridership

Projected (by September 1988)

Average Weekday Rides.....17,000
Total Annual.....>3,000,000

Actual

Average Weekday Rides.....20,000
Average Saturday Rides.....21,000
Average Sunday Rides.....16,000
Average Monthly Rides.....550,000
Total Rides (Sept 8 - Mar 8).....3,500,000

MAX has carried over 14 percent of Tri-Met monthly rides on less than 4 percent of the scheduled hours of transit operation.

Miles/Hours

Average Weekday Vehicle Miles.....2,445
Average Monthly Vehicle Miles.....69,570
Vehicle Miles in Service (9/86 through 2/87) 382,507
Average Weekday Schedule Hours.....157
Average Monthly Schedule Hours.....4,480
Vehicle Hours in Service (9/86 through 2/87) 24,315

Added Service

To respond to the longer running time created by higher than expected patronage, additional service was added on November 23, 1986 in time for the holiday shopping season. The extra service added a train to mid-days Monday through Saturday to keep schedules, extended 15-minute frequencies to 10:30 P.M. Weekdays and Saturdays and doubling service from 1/2-hourly to 15-minute frequencies Sundays between 10:30 A.M. and 6:30 P.M.

<u>Initial Service Schedule</u>	<u>Effective 11/23/86</u>
Weekday Hours.....138	157
Saturday Hours.....108	137
Sunday Hours.....72	114
Avg. Monthly Hrs...3,750	4,480 (+19.5%)

FINANCIAL

<u>Year-to-date</u> <u>Operating Budget</u>		<u>Actual</u> <u>Expenditures</u>	<u>Difference</u>
\$ 3,232,378		\$ 2,499,156	-23%
<u>MAX Farebox Recovery</u>		<u>BUS Farebox Recovery</u>	<u>*System</u>
FY 1986	N/A	31%	31%
FY 1987**	51%	31%	32%
Average Operating Cost per	<u>MAX</u>	<u>BUS</u>	<u>System</u>
Originating Rider	\$ 0.86	\$1.80	\$1.65
(A MAX ride costs Tri-Met half as much as a BUS ride)			
Average Operating Cost per Hour	<u>MAX</u>	<u>BUS</u>	<u>System</u>
	\$ 102	\$ 37	\$ 46

* percent of Operations Division cost covered by the farebox
 ** FY 1987 estimate

ECONOMIC DEVELOPMENT

Downtown Portland:

- o Retailers reported the best holiday shopping season in several years (at the Galleria, September 1986 sales were up 18 percent over last year's sales; by Christmas, seasonal sales were reported up 50%);
- o For the first time, merchants are participating in a FreeRide program similar to parking validation where a minimum purchase entitles transit riders to a free ride home;

- 2-13
- o The Portland Building Owners & Managers Association (BOMA) reports MAX providing more traffic for businesses along the rail route and in the Morrison/Yamhill loop. Occupancy rates for the last quarter of 1986 stood at 83 percent for office properties and 94 percent retail, up slightly from last year. BOMA also indicated that MAX is responsible for making the properties along the rail route easier to lease.

Gresham:

- o Businesses have been seeing many new customers since MAX opened;
- o Shops traditionally closed on weekends are now open and serving clientele from all over the region who arrive by MAX;
- o Plans have been made to strengthen the historical retail core.

New Construction completed/slanted

MAX is not the reason much of the following development has occurred. It undoubtedly would have occurred anyway. A critical early decision was to locate MAX in the middle of key development areas rather than along the fringes as had been done with transit in other cities. In this way, MAX was incorporated into new development which occurred while the line was under construction.

Downtown Portland:

Pacific First Federal Center	One Financial Center
One Pacific Square	Pioneer Place Project
Yamhill Market Place	Pioneer Courthouse Square

Lloyd Center:

Moyer's 8-screen Lloyd Cinema	Red Lion Inn Renovation
Shopping Center Renovation	Oregon Convention Center

Hollywood:

Traffic & Pedestrian Improvements	Elk's Lodge Renovation
-----------------------------------	------------------------

Gateway:

Fred Meyer Gateway Store	Gateway Shopping Center
YMCA Family Fitness Center (on hold)	

2-14
Burnside:

Transamerica Title Insurance Co.

Rockwood:

Kaiser Permanente Medical Clinic Plaza 181

Gresham:

Gresham Town Fair

Urban Development Project



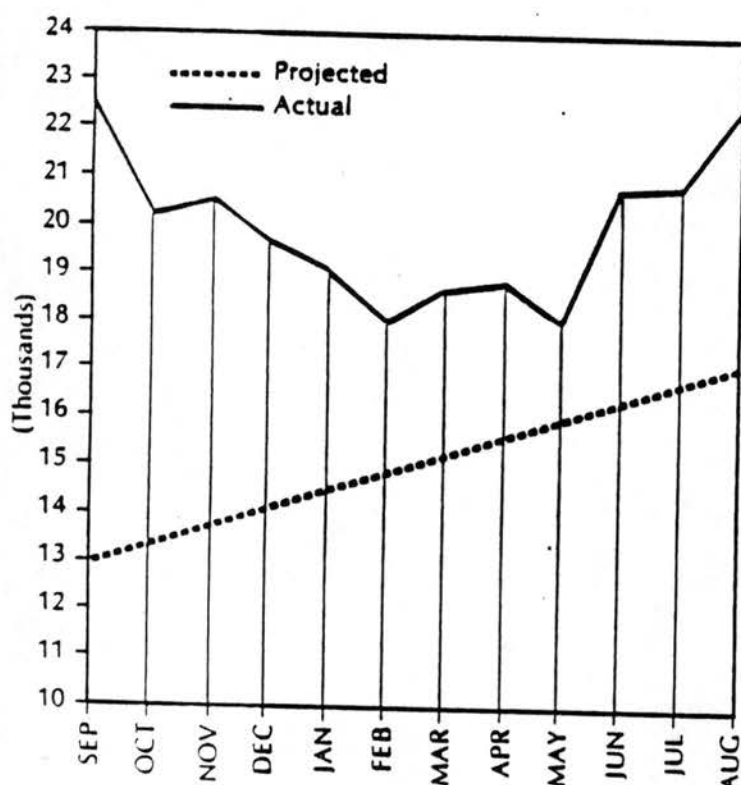
Tri-County Metropolitan Transportation District of Oregon • 4012 SE 17th Avenue, Portland, Oregon 97202 • 238-4823

First Year of Service

During its first year, Tri-Met's light rail service, MAX, carried twice as many riders as originally projected. The success of MAX forms part of Tri-Met's 1987 story of higher ridership, improved productivity and increased morale. From its earliest days, MAX was credited with improving Tri-Met's public image. When asked what kind of job the agency was doing, the number of people responding "good" and "excellent" went from 49% in March 1986 to 65% in November 1986.

MAX RIDERSHIP

Weekday Boardings



During every month of service, MAX has exceeded weekday ridership projections. Total riders for the first eleven months more than doubled expectations for the first year.

PATRONAGE EXCEEDED PROJECTIONS

	Projected (first year)	Actual (first year)
Avg. Weekday Boarding Riders.....	17,000	19,900
Total Boarding Riders.....	3,000,000	7,230,000

MAX has carried 12% of Tri-Met weekday riders on 3.2% of the scheduled service hours.

MAX passengers set a record for paid ridership on June 6, 1987. 70,000 riders took MAX to Portland's Rose Festival Grand Floral Parade and other Festival events.

SERVICE INCREASED

Tri-Met responded to higher-than-expected patronage on November 23, 1986 by permanently adding service. This increase extended 15-minute frequencies to 10:30 p.m. weekdays and Saturdays and doubled service to 15-minute intervals Sundays between 10:30 a.m. and 6:30 p.m. Tri-Met also improved schedule reliability by adding an extra train Monday through Friday. On March 30, 1987, some peak-hour trips which had originated and ended at the 197th Avenue MAX station were extended to Cleveland Avenue in Gresham.

	9/8/86	11/23/86	3/30/87	Change
Weekday Hours.....	138	157	162	+17.4%
Saturday Hours.....	108	137	137	+26.9%
Sunday Hours.....	72	114	114	+58.3%
Avg. Monthly Hrs.....	3,750	4,480	4,631	+23.5%

Miles/Hours

Average Weekday Vehicle Miles.....	2,453
Average Monthly Vehicle Miles.....	71,501
Vehicle Miles in Service (9/86 through 8/87).....	840,000
Average Weekday Schedule Hours.....	161
Average Monthly Schedule Hours.....	4,631
Vehicle Hours in Service (9/86 through 8/87).....	51,998

FINANCIAL

Budget vs. Actual

FY 1987	FY 1987	
Operating Budget	Expenditures	Variance
\$5,495,261	\$4,293,002	- 22%

Farebox Recovery

	MAX*	Bus*	System
FY 1986	N/A	31%	26%
FY 1987†	51%	31%	28%

Average Operating Cost per Originating Rider

	MAX	Bus	System
FY 1986	N/A	\$1.76	\$1.76
FY 1987	\$.81	1.76†	1.67
Difference	N/A	0	- 5.11%

(A MAX ride costs Tri-Met half as much as a bus ride.)

Operations Cost per Hour

	MAX	Bus	System
FY 1986	N/A	\$39	\$39
FY 1987	\$98	37	38

*Percent of Operations Division cost covered by the farebox
 †FY 1987 estimate

New Construction Completed/Slated

By the time MAX opened, private development equivalent to its \$214 million construction cost had been completed along the line. Another \$300 million is presently slated for or under construction.

A critical early decision was to locate MAX in the middle of key development areas rather than along the fringes as had been done with transit in other cities. In this way, MAX was incorporated into new development which occurred while the line was under construction. Among the developments:

Downtown Portland:

One Financial Center
 One Pacific Square
 Pacific First Federal Center
 Pioneer Courthouse Square
 Pioneer Place Project
 Yamhill Market Place

Lloyd Center:

Moyer's 10-screen Lloyd Cinema
 Oregon Convention Center
 Red Lion Inn Renovation
 Shopping Center Renovation

Hollywood:

Elk's Lodge Renovation
 Traffic & Pedestrian Improvements

Gateway:

Fred Meyer Gateway Store
 Gateway Shopping Center

Burnside:

Transamerica Title Insurance Co.

Rockwood:

Kaiser Permanente Medical Clinic
 Plaza 181

Gresham:

Gresham Town Fair

ECONOMIC DEVELOPMENT

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- For the first time, merchants are participating in a FreeRide program similar to parking validation where a minimum purchase entitles transit riders to a free ride home;
- The Portland Building Owners & Managers Association (BOMA) reports MAX providing more traffic for businesses along the rail route and in the Morrison/Yamhill loop. Occupancy rates for the first quarter of 1987 stood at 84% for office properties, up slightly from last year. BOMA also indicated that MAX is responsible for making the properties along the rail route easier to lease.
- Two new buildings, One Financial Center (350,000 sq. ft.) and a federal office building (750,000 sq. ft.), have opened at the Third Avenue and Lloyd Center MAX stations.

Gresham:

- Businesses have been seeing many new customers since MAX opened; business owners reported sales up at shops and restaurants;
- Shops traditionally closed on weekends are open, serving clientele who arrive by MAX from all over the region; Sunday is now the best retail day for many stores;
- A Gresham Farmers' Market opened in June 1987 at the MAX Gresham City Hall Station;
- A new, major shopping center, Gresham Town Fair (276,000 sq. ft.), opened in the Spring of 1987 within walking distance of the Gresham City Hall MAX Station.

State-of-the-Art Report 2



Papers presented at the Conference on Light Rail Transit

May 8-10, 1985, Pittsburgh, Pennsylvania

Conducted by the Transportation Research Board

TRANSPORTATION RESEARCH BOARD

National Research Council

Washington, D.C. 1985

Smaller Scale Joint Development: San Diego Trolley

Helene B. Kornblatt

Metropolitan Transit Development Board
San Diego, California

The purpose of this paper is to share San Diego's experience with joint development related to "smaller scale" light rail transit (LRT). It is a narrative account of the Metropolitan Transit Development Board's (MTDB's) relatively modest but promising experiences to date. This is not a report of the results of a rigorous or structured research analysis effort; it is instead a summary of practical experience and of some intuitive insights based on that experience.

A word about smaller scale joint development and why it is an appropriate topic for the MTDB is in order. Joint development has been and will continue to be a key goal and tool for implementing San Diego's LRT system. Smaller scale is not descriptive of the potential or aspirations for LRT joint development in San Diego; it is, however, reflective of experience to date. In San Diego it has been found that a constellation of smaller scale joint development efforts is cumulatively adding up to more than the sum of their parts. The result is the building of a foundation of joint development experience that can be expanded as the relatively new (less than 4 years old) LRT system expands and matures.

SAN DIEGO'S LIGHT RAIL TRANSIT SYSTEM

The present San Diego light rail transit system consists of two lines. The existing South Line operates along 15.9 mi between San Diego's Centre City and the Mexican border and makes 18 station stops. A second line, the Euclid Line, is presently under construction. This 6-mi line will operate between Centre City and Euclid Avenue to the east and will make 11 stops (seven of which are common to the South Line). An extension of the East Line 11.5 mi east from the Euclid terminus is one alternative being considered in a study of potential transportation improvements in the East Urban Corridor. San Diego's adopted regional transportation plan proposes a coordinated bus and light rail network that includes additional light rail extensions. Implementation of the proposed extensions could occur within a 5- to 20-year time frame.

EXAMPLES OF JOINT DEVELOPMENT IN SAN DIEGO

Station Area Development

The joint development implementation process and evaluation criteria used by the MTDB have been re-

defined into an adopted policy on "Joint Use and Development of Property." MTDB is currently preparing a joint development prospectus for each station site in the LRT system for use by potential developers. A summary of existing joint use opportunities follows:

- San Ysidro station concession. MTDB has leased a food kiosk to a concessionaire who plans to serve coffee and Mexican pastries at the San Ysidro-International Border LRT station. Proceeds from rent will be supplemented by a percentage of gross sales.

- Chula Vista Bayside station. After completion of the South Line, the city of Chula Vista and San Diego County executed an agreement with MTDB specifying city and county responsibility for planning and funding of a new, additional station to serve a newly approved redevelopment project. MTDB, local agencies, and the local chamber of commerce are considering development of joint office and commercial uses with the station.

- Grossmont shopping center. Construction of an LRT extension in the East Urban Corridor brings the potential for a major joint use project involving MTDB with an adjacent major regional shopping center. MTDB owns a parcel of approximately 7.5 acres adjacent to the Grossmont regional shopping center. A memorandum of understanding (MOU) that commits both parties to jointly develop a future transit station-commercial-office facility has been executed between MTDB and the shopping center.

- La Mesa station. The proposed downtown La Mesa LRT station would adjoin a major redevelopment project. The project developer has incorporated the LRT station into preliminary plans and proposes to fund construction of a station integrated into the commercial-office development.

- Southeast San Diego Euclid Line stations. Four stations on the Euclid Line (under construction) fall within the planning and development area of the Southeast Economic Development Corporation (SEDC), which plans and implements projects in the trolley corridor. MTDB is involved in a joint effort with the SEDC to evaluate the potential of station sites and surrounding developable area for joint development.

- Imperial Avenue transfer station site. MTDB owns 2.65 acres at the site of the Imperial Avenue transfer station, which will accommodate LRT passenger transfers between the South Line and the Euclid Line and perhaps among additional future lines. MTDB is evaluating a joint development at the site that would consist of approximately 25,000 ft² of office space (including, MTDB's headquarters offices)

and 10,000 ft² of ground floor retail commercial space.

Developer Contributions to Plan, Construct, and Operate Light Rail Transit

This category of joint development involves developer contributions of right-of-way or funds, or both, to plan, construct, or operate LRT. Contributions are often made as a form of mitigation for traffic and parking impacts associated with development. Two examples of developer participation follow:

- * Mission Valley projects. Mission Valley is a rapidly developing urban commercial-office-residential area adjacent to the San Diego River. Traffic and parking problems could severely constrain development. The city of San Diego, in consultation with MTDB, has approved major projects in Mission Valley subject to developer participation in future light rail transit including a contribution for a light rail transit study, reservation and dedication of LRT right-of-way within the Northside project, funding for construction of an LRT line and station within the Northside project, 20 percent funding for an LRT grade separation project, and funding for the construction of an LRT line through an adjacent property.

- * Major Centre City project. The Santa Fe Land Improvement Company is implementing a major commercial-office-hotel development in downtown San Diego. In seeking approval for the project, the developer agreed to a donation of right-of-way, or to a financial contribution not to exceed \$1 million, for a future light rail extension to the north.

WHAT HAS BEEN LEARNED ABOUT LRT JOINT DEVELOPMENT IN SAN DIEGO

Lesson 1: Realistic Expectations

Joint development does not simply occur as a function of the presence of a new LRT line. There are many determinants of station site joint development potential, some of which are more amenable to control and change than others:

1. Station site environs. An LRT station is not an island, and station site joint development does not occur in a vacuum, independent of the surrounding environment. The following features of station environs can help or hinder joint development potential:

- A. Development density and urban form. High-density development in station environs is one determinant of joint development potential that many cities (San Francisco, Philadelphia, Boston) may take for granted. In San Diego it is a relatively new concept that must be actively fostered. The relatively low-density development around many LRT stations can challenge efforts to encourage joint development.

- B. Surrounding land use. The historical presence of a freight railroad in the LRT corridors has been a primary determinant of the types of surrounding land uses. Much of the LRT environment consists of the "back door" of industrial and manufacturing uses that were and continue to be served by freight delivery trains. The land uses provide a less favorable joint development environment.

- C. Redevelopment and new development environment. In the Euclid line and East Urban extension areas, concerted redevelopment efforts

by local cities and redevelopment authorities could create an impetus for change in the urban environment that would enhance joint development potential. In Mission Valley a booming new development environment could be more conducive to joint development than the South and Euclid line environs proved to be.

2. Physical attributes of the site. An LRT station site is no different from any other potential development site. Physical constraints can affect development potential.

3. Amount of developable land available and potential for combined development with adjacent lands. MTDB has acquired a suitable amount of real property necessary to implement LRT facilities without resulting in a surplus. Therefore joint development potential is enhanced by the possibility of combined development with land adjacent to station sites and owned by others.

Given these determinants of station site development potential, the most promising joint development possibilities in San Diego involve development of air rights, parking areas (where the development incorporates adequate station as well as project parking), and development of small joint development uses (news kiosks, automatic teller machines, flower stands) that can be accommodated in surplus area pockets on station sites.

Lesson 2: Strong Public Policy Commitment

A firm public policy commitment to successful implementation of joint development is an essential prerequisite for success. The mere presence of the LRT does not usually result in spontaneous development. Public policy makers must "prime the pump" for station site joint development to happen, and the pump must be primed early and often.

In San Diego the newness of and lack of familiarity with the implications of the first South LRT Line resulted in a perhaps understandable hesitancy to aggressively change public policy to address the LRT line's full potential. For the Euclid Line and other proposed lines, joint development-related cooperative planning efforts and private sector involvement are occurring during planning and early construction.

Specific policy actions that foster joint development include

- * Appropriate land use designations and zoning that are conducive to joint development;

- * Integrated planning (e.g., station area plans) that establishes the LRT station as an integral part of community development and provision for well-planned pedestrian station access and circulation;

- * Development incentives that encourage joint development (e.g., density bonuses or reduced parking requirements, or both) of locations adjacent to a station;

- * Aggressive LRT-focused policy commitment to pursue joint development by the city and redevelopment agencies

- * Private sector outreach by the LRT authority (transit development board), city council, and redevelopment authority, emphasizing the advantages of joint development to the private sector;

- * Adoption of transit development board policies demonstrating a commitment to seek developer assistance in financing transit improvements and indicating where developer contributions are appropriate;

- * City land use plans, zoning, and policies

that designate planned LRT corridors and require developer contributions for transit to help ensure orderly growth and reduce adverse development impacts; and

• Strong city infrastructure policies that view developer contributions to finance transit improvements in the same light as more traditional developer-provided necessities (e.g., schools, roads).

Lesson 3: Benefits of Joint Development

Private sector developer participation in joint development can be achieved when the advantage to the private sector participant is clear and compelling. In San Diego (e.g., Mission Valley) developer participation in funding transit can mean the difference between approval and denial of a project by local authorities concerned about adverse traffic and parking impacts associated with a project.

Developers can be enthusiastic about participation in LRT implementation when the economic and patron access advantages of the LRT to private enterprise are clearly demonstrated and emphasized.

Lesson 4: Smaller Scale Joint Developments

A number of smaller scale joint developments can have cumulative nonquantifiable benefits in addition to financial benefits. Such nonquantifiable benefits include

- Increased visibility of the LRT in the potential rider community;
- Increases in LRT station amenities and resulting overall enhancement of the LRT rider experience;
- Promotion of the idea of joint development and the LRT-private sector partnership; and
- An opportunity to gain joint development experience that will be applicable to subsequent, more ambitious efforts.

These nonquantifiable benefits of smaller scale joint development efforts could ultimately result in quantifiable gains in LRT revenues and in increased and more ambitious joint development.

SYSTEM STANDARDS, POLICIES
AND CHARACTERISTICS

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PREFACE

This technical memorandum examines issues relating to development of a comprehensive Light Rail Transit (LRT) Plan for Hennepin County. It sets forth LRT system service standards and performance criteria, outlines baseline LRT facility and equipment characteristics, and discusses basic operating and maintenance staffing requirements. The material herein is based on the accumulated experience of successful new North American LRT projects which, in turn, are based on decades of LRT operations and development in Europe.

This information is presented at a level of detail appropriate for the analysis and comparison of the several alternative corridors being examined, and that will support feasibility engineering of facilities and preparation of cost estimates. These "conceptual design criteria" will be expanded during Preliminary Engineering to provide the level of detail required for actual system design.

These data are dynamic in nature. They should be updated periodically to reflect the more detailed information that will become available as planning and design proceed.

I. SYSTEM OPERATING STANDARDS

The Hennepin County light rail transit (LRT) system will use conventional LRT technology. It is planned to build several lines forming a regional rail transit system.

In addition to being responsive to the civil constraints of the proposed lines, LRT operating plans also must reflect realistic train running time estimates, policy levels of service and ridership projections. Individually, changes to any of these parameters may have a significant effect on operating statistics, fleet size, staffing, and overall operations and maintenance costs.

The operating assumptions presented below are recommended as a basis for analysis, which responsible authorities may wish to modify as the system plan develops.

A. Hours of Service

Normal weekday service will begin at approximately 5:30 AM and end at 1:00 AM. Commuting peaks are assumed to occur from 6:30-9:00 AM and 3:30-6:00 PM. Weekend service will begin at 7:00 AM and extend until midnight.

B. Service Frequencies

Base LRT headways will be fifteen minutes during the day on weekdays, with thirty-minute headways on week nights and all day on weekends and holidays. Shorter weekday peak period frequencies will be assumed only if estimated demand exceeds the capacity of maximum length trains running at the base fifteen-minute interval.

C. Maximum Train Length

The number of cars per train is a function of headways, platform lengths, vehicle limits, and street block lengths. Trains on the Hennepin County LRT system may not exceed a total length of 320 feet owing to the constraints of block faces in downtown Minneapolis (3 cars not exceeding 90 feet/car or 4 cars not exceeding 80 feet/car).

It is anticipated that trains of at least two-cars will be operated on peak period, peak direction trains, but that single-car trains may suffice for all or most off-peak services.

D. Seated and Standing Passengers

It is recommended, based on representative LRVs currently operating in North America, that the rolling stock provide 0.8 seats per linear foot of car, and a normal (not "crush") total load of at least 1.8 persons per linear foot of car (seated load plus standees at four 4 persons/square meter).

E. Speeds, Station Dwell Times, Recovery and Layover Allowances

LRV travel should be swift and comfortable, so as to be competitive with the private automobile.

1. Speed Limits

Speed limits recommended for Hennepin County LRT lines by segment location are:

Type R/W	Speed Limit (Mi/H)
Private (e.g., ex-C&NW line)	55
Street:	
Reserved median	Street Speed Limit
Reserved paved lane	Speed Limit <35

These speeds generally are consistent with LRV performance capabilities, station spacing, adjacent development, and traffic interference. In some locations, local conditions such as sharp radius curves will reduce speeds for relatively short distances. Streetcar-type operation of LRVs in mixed traffic lanes is not contemplated.

2. Station Dwell Times

For system planning purposes, a uniform average dwell (stopped) time of twenty seconds per station should be assumed. Actual dwell times will be longer at more heavily patronized stops and shorter at lightly used stations; but twenty seconds has been found to be a reasonable standard for operations planning.

3. Recovery and Layover Allowances

End terminal layovers should be consistent with the requirements of the adopted labor agreement. Train operators will change ends and set the vehicle destination signs to the proper indications. Turnaround times must be allocated for these tasks, and to provide adequate operator rest periods.

For planning purposes, an allowance of 10 percent of running time will provide some schedule recovery time as part of the terminal layover. However, layovers should not be less than three minutes to provide enough time for train operators to "change ends" and make a safety check. If a short layover is unavoidable at one end of a line, a longer rest period should be scheduled at the opposite terminal.

Recovery allowances up to 10 percent (depending on R/W quality, which affects schedule reliability) should be added to "optimum" running time estimates (train performance simulation model plus dwell times). This will ensure that planned operating schedules are realistic.

F. Track Configuration

Track configuration will vary along the LRT line in relation to the degree of exclusivity from other traffic and speeds attainable by LRVs.

The mainline will be designed to be fully double-tracked, with crossovers located every 1.0-to-1.5 miles or at every other station to provide operating flexibility under abnormal conditions. A pocket track or siding should be provided every five miles, at a station.

If initial headways remain sufficiently long - in the range of 15 minutes between trains - substantial amounts of single track may be considered under a "starter line" concept. Where used, single track should be designed to facilitate eventual full double tracking.

To conserve land, terminals will be stub-ended, with a tail or pocket track. This will require train operators to change ends before beginning each return trip.

G. Train Control

Trains on the LRT system will be operated manually. Mainline operations (whether normal or abnormal) will be directed, controlled, and monitored by a dispatcher at Central Control (located at the Shop & Yard), primarily via radio. Central Control will be the nerve center of the LRT system, controlling mainline and yard operations.

The dispatcher will control and direct LRT operations in accordance with established operating schedules, rules, and procedures, and will initiate any corrective actions that may be required to maintain service schedules and to minimize the adverse impacts of equipment failures or emergency situations.

LRT train movements will operate by line of sight. Train protection will be accomplished by the means indicated below:

- o Private R/W - automatic block signals using proven, railroad-type vital circuitry and components
- o Street R/W - line of sight subject to operating rules and procedures requiring train operators to maintain a separation of at least one block between two trains.

H. LRT Connections - Feeder Buses and Automobiles

LRT lines in Hennepin County will be part of a regional transportation network. Buses operated by the Metropolitan Transit Commission (MTC) and others should be integrated with LRT service using a revised route network providing interfaces with the LRT lines at selected stations.

Provisions will be included at selected LRT stations to accommodate all-day parking and automobile passenger drop-offs.

II. SYSTEM POLICIES

Key areas of concern in the development of any transit system are safety, security, and accessibility. With the introduction of rail service in a previously all-bus city, fare collection methods also must be addressed. Proposed policies to govern LRT system development in these areas of special concern are described below.

A. Safety

Subsequent phases of system design will address issues and concerns related to system safety, and desirable mitigation measures to be provided. The areas of concern regarding safety include:

- o Rider safety in stations and on LRVs
- o Employee safety on or about LRVs and fixed facilities
- o Pedestrian safety in areas adjacent to downtown surface alignments and at grade crossings
- o LRV safety vis-a-vis other traffic

With regard to grade crossing and intersection safety, it is recommended that LRT planning for Hennepin County proceed, assuming that protection will be provided as follows:

- o LRT on private right-of-way (R/W) - railroad-style flashers and gates. Where necessary, crossing protection will be coordinated with adjacent street intersection traffic signals
- o LRT in street R/W - traffic lights with LRT preemption or prioritization to be designed on an intersection by intersection basis

B. Security

Subsequent phases of system design will address issues, concerns, and recommendations regarding:

- o Station surveillance - patrols, public address (PA), emergency telephones, etc.
- o Revenue protection - ticket vendomat alarms, cash collection procedures
- o Durability of facilities - designs and materials specified to resist damage and graffiti
- o Shop and Yard - fencing, lighting, patrols

C. Vehicle and Platform Heights and Accessibility

It is desired that the system be accessible to all riders, consistent with the goals of cost efficiency and LRT compatibility with adjacent urban land uses.

There are three approaches to achieving full accessibility.

- o High platforms to match normal rail car floor heights (+40 inches above top of rail)
- o Low-floor LRVs, just now coming into use in Geneva and Grenoble (car floors +14 and 19 inches above top of rail)
- o Low platforms and normal floor height LRVs with station-mounted ramps and/or lifts for the physically challenged

Each method has advantages and drawbacks.

In the interim, it is recommended that LRT planning proceed assuming the use of normal floor height LRVs, platforms raised eight inches above top of rail (TOR) as in Portland, and short sections of car floor level platform with either ramps for wheelchair access as in Sacramento or lifts, depending upon local station conditions. LRVs should be equipped with wheelchair tiedowns.

It is further recommended that the option of low-floor LRVs be explored as the LRT planning and design process moves forward.

D. LRT Fare Collection

North American surface transit systems traditionally have collected fares on the vehicles as passengers board. This limits boarding to the front door, or requires fare collection staff at each entry door. It is incompatible with efficient operation of trains of cars, each car having several doors.

Grade separated rapid transit systems overcome this limitation by collecting fares in stations using combinations of cashiers and/or ticket vandomats in concert with turnstiles. However, it has never really been possible to isolate "paid" and "free" areas in surface stations; therefore, this method is not suitable for LRT in Hennepin County (assuming low-level platforms).

The feasible option is the "self-service, proof-of-payment" (POP) method of fare collection. Station platforms are "free"; and the trains are "paid" areas. Passengers use passes or purchase tickets from vandomats at stations. These serve as "proof" that a fare has been paid. Roving inspectors ride the trains and, if a passenger fails to produce a valid "proof" of payment, issue citations processed through the courts like traffic tickets. POP is used by North American LRT systems in Portland, Sacramento, San Diego, Calgary, and Edmonton, and on the Skytrain and Seabus in Vancouver. Fare evasion on these systems has been held to three percent or less.

It is recommended that LRT planning for Hennepin County proceed, assuming use of POP fare collection. LRT fares should be integrated with the fares of the region's other transit systems.

III. CHARACTERISTICS OF LRT FACILITIES AND EQUIPMENT

The following sections present "conceptual design criteria" for planning LRT in Hennepin County. These criteria call for proven technology, previously used elsewhere, and thus offering a record of successful operating experience.

A. Vehicles

For purposes of preparing the Comprehensive LRT System Plan, it is recommended that passenger-carrying light rail vehicles be assumed as articulated and approximately 80 to 90 feet long, 8'-9" to 9'-3" wide, and 12'-6" high (TOR to top of locked down pantograph).

Each car will be equipped for independent two-way operation, with an operator's cab at each end and four double-width doors on each side. A single pantograph will be located on the roof of each car for power collection from the overhead contact system. The weight of a "crush-loaded" LRV must not exceed 130,000 lbs. LRVs will be heated and air conditioned.

These vehicle performance parameters are recommended:

o Maximum service speed.....	55 mi/h
o Acceleration rate	3.0 mi/h/s (initial)
o Braking rate	3.0 mi/h/s
o Emergency braking	6.0 mi/h/s

LRVs will have seated and standing passenger carrying capacity as outlined in Section I-D above. For the specimen 80-foot articulated car, this will be 64 seats and a total seated and standing load of 144.

These parameters should be evaluated further as design proceeds to ensure selection of a vehicle fleet of optimum type and size to meet both initial and future service requirements. Other vehicle options that will be considered include:

- o Large (90 foot) articulated LRV (Portland, San Jose; trains will be limited to three cars, as a four-car train will exceed the 320-foot maximum train length)
- o Rigid (i.e., non-articulated) car not exceeding 64 feet

B. Track and Roadbed

Standard American Railroad Engineering Association (AREA) track designs should be assumed for current LRT planning. The following standards are recommended, subject to modifications for specific local conditions along the lines:

- o Subgrade - at least twelve-inch depth; filter fabric between subgrade and ballast
- o Ballast - at least eight-inch below ties, crushed granite, #4 (open track) and #5 (track embedded in paving)
- o Rail - 115 lbs/yard (RE), continuously welded
- o Ties - mixed hardwoods, creosote treated, or concrete
- o Other track materials - double shoulder tie plates, cut spikes or other fasteners as appropriate, anchors as required
- o Special trackwork (turnouts) - #20 mainline (high speed), #8 mainline (low speed) and #4 yard; all track switches to be equipped with switch heaters.

As design proceeds, and if the LRT system will not have to accommodate railroad freight cars, the County may wish to evaluate "European style" track components which are tailored to the needs of LRT systems. However, they must be imported, which may increase procurement costs.

C. Traction Power

The traction power system will consist of three major subsystems: substations, a positive circuit (the overhead wire), and a negative return circuit (the track). The functional requirements of this system will be derived from the operating plans for the various LRT lines. Until such plans are prepared, it is recommended that conceptual design proceed under the following assumptions:

- o Nominal voltage in the LRT overhead: 750 volts DC
- o Substations (convert high voltage commercial AC power to 750 volt DC). Assume manufactured "unitized" substations of +750-to-1,000 Kw spaced at intervals of +one mile. Remote control of substations will not be required.

- o Overhead Distribution System. Assume feederless constant tension simple catenary on line segments in private R/W, and constant tension trolley wire with parallel underground feeders on line segments in street R/W.

The first step in Preliminary Engineering will be to develop design analyses to determine more precisely the number and rating of substations, the specific characteristics of the overhead distribution system, and to specify track construction that will ensure the electrical integrity of the return circuit.

D. Signals

Signaling and control subsystems will be basic and confined to those functions required for safety (i.e., train protection and at-grade street crossing protection on private R/W) and for the oversight and management of operations at terminals, turnbacks, and between the yard and main line (i.e., train supervision).

Wayside automatic block signals providing following movement protection and indicating track occupancy on single track sections will be installed where operating speeds, sight lines, or other conditions require. The potential need for automatic train stops (ATS) should be evaluated. In double track territory, normal operations will be to the right, and where provided, signaling will be for the normal direction of travel only. Abnormal operations will be governed by the operating rules and procedures (see Section I-G, above).

Track switches will be controlled in one of three ways, depending on their location and function:

- o At junctions where frequent through and diverging facing train movements are made - power-operated, with routes requested by operator-controlled devices
- o In low speed territory and used primarily for through facing movements and trailing movements from the diverging route - spring-operated
- o Infrequently used mainline switches and yard switches -hand thrown

Grade crossing protection requirements are addressed in Section II-A.

E. Communications

A two-way radio system will form the basis of LRT system communications. Separate channels should be provided for operations, maintenance, and supervision. In addition, it may be wise to provide a construction channel if LRT development in Hennepin County is to be phased more or less continuously over a period of +20 years.

LRVs and maintenance and supervisory vehicles should be equipped with radio transceivers. The control console will be located in Central Control. Additional fixed transceivers may be provided in key transportation and maintenance staff offices. Train operators and maintenance crew supervisors should carry portable transceivers so that communications will continue when they are not in LRV cabs or maintenance vehicles.

A standard office-type telephone system will be provided at the Shop & Yard, which will house transportation as well as maintenance activities.

Passenger communication will be through train operators using the public address (PA) systems on the LRVs. LRV PAs will have both interior and exterior speakers, the latter to make announcements to passengers at stations and to admonish intruders along the R/W. The new LRT systems generally have not provided PAs at stations, and their inclusion is not recommended.

F. Security

The principal methods of ensuring the security of the system's facilities, employees, and riders are to use designs that ensure open sight lines and high levels of light. These criteria will affect the design of LRVs, station shelters and other amenities, station and parking lot lighting, and landscaping.

An emergency telephone should be located on each station platform. CCTV surveillance of station platforms is a possibility, but has not been included in the most recent new LRT systems in Portland and Sacramento, and probably is not needed in Hennepin County. Pending further study, CCTV is not recommended.

Once in operation, security will be enhanced by the presence of employees on the system (train operators, fare inspectors, maintenance crews and supervisory personnel), supplemented as may be required by security patrols. The extent to which patrols are required should be determined through discussions with local law enforcement authorities and existing transit providers.

G. Fare Collection

To support the self-service proof-of-payment (POP) fare collection system (see Section II-D), equipment will be required at all stations to enable passengers to make change, purchase, and validate tickets. Until more detailed studies and cost comparisons can be performed, it is recommended that LRT planning proceed assuming that all functions will be integrated into one machine, called a "vendomat," and that two such machines will be provided at each station.

H. Stations

Use of POP fare collection will allow stations to be constructed to the simplest of design standards. Stations are to be at grade. They will not be fully enclosed, but one or more shelters will be located on each platform to protect waiting passengers from rain, snow, and wind.

1. Basic Station Types

All stations will provide the basic facilities necessary to use the system, including vendomats, information displays, and passenger amenities. Materials used in stations should be attractive, durable, graffiti-resistant, and require only minimal maintenance. There will be two basic types of stations: On-Street, where a modified sidewalk will serve as the station platform, and Private R/W, where a separate LRT platform(s) must be built.

2. Platforms

Platforms will be provided at each Private R/W station, adjacent to the rail line. Platforms (and sidewalk edges at On-Street stations) will be eight inches above the top-of-rail. Private R/W platform dimensions should be 330 foot length, with widths of 10 feet for side platforms and sixteen feet for center (island) platforms. Exceptions may be considered where local conditions dictate.

Platforms will be mainly finished concrete, architecturally treated to accommodate the handicapped. Splash guards should be provided on the street sides of platforms located in street R/W.

3. Shelters

Shelters at On-Street stations must be kept relatively small (i.e., bus shelters) to minimize sidewalk clutter. Shelters at Private R/W stations may be larger (approximately one-third of the platform length in the peak boarding direction), but should be to a standard, simple design to provide an attractive, yet cost effective facility. Shelters will be radiantly heated, but not air-conditioned.

4. Bus Transfer and Park-Ride Facilities

Bus transfer facilities should provide across-the-platform bus-train transfers wherever possible. Long walks to LRT platforms should be avoided for both bus-train transfers and automobile passenger drop-offs. Automobile park-ride lots should be designed to local standards, maximizing the number of spaces available for a given site size and configuration.

I. Shop and Yard

A single shop and yard will be provided initially for the Hennepin County LRT system. It should be centrally located and sized to serve all proposed lines. As the system grows and matures, provision of additional overnight storage and light maintenance facilities at the outer ends of longer lines may be considered to reduce deadheading and avoid crowding at the central LRV storage yard.

Because the initial LRT system will be relatively modest in size, and to enhance the efficiency of management, the central Shop and Yard will house all operations and maintenance functions:

- o Administrative offices
- o Central Control
- o Operator dispatch and welfare facilities
- o LRV storage yard and maintenance shop
- o Facilities maintenance base and component repair shops
- o Parts stores

Based on other recent LRV shops, an allowance of 1,500-2,000 square feet per LRV (decreasing as fleet size grows) will be adequate for planning purposes.

The LRV storage yard should be sized to accommodate the initial fleet and, additionally, should contain sufficient acreage to house the LRVs of a "basic" system of magnitude to be defined (more than the starter line but probably less than the full "twenty-year" system).

J. Support Equipment

Support equipment in several different categories will be needed to supervise and maintain the LRT system:

- o Shop tools and equipment (major items include a wheel truing machine, wheel/axle press, wheel assembly press, car washing equipment, and various cranes, jacks, and machine tools)
- o Facilities maintenance machinery (e.g., track repair tools)
- o Maintenance and supervisory vehicles (various size trucks and automobiles)

IV. OPERATIONS AND MAINTENANCE STAFFING

LRT will require that an organization be established either within the structure of an existing transit agency or by a new operator.

A. Types and Availability of Skills

Personnel will be needed who possess specialized skills, some of which may be minimally available or unavailable in the Twin Cities area today.

Transportation supervisory staff and train operators may be hired from some combination of bus and/or railroad operating personnel. These individuals will require training in the unique aspects of LRT operations, rules and procedures, and equipment.

Vehicles maintenance personnel will require experience, or will have to be trained, in the servicing and repair of mechanical and electrical machinery. Railroad workers experienced in the maintenance of the electrical portions of diesel locomotives may find the LRT system an attractive job opportunity. Other types of electrical workers and, with re-training, bus mechanics, can also make suitable LRV maintainers.

In the area of facilities maintenance, special skills not commonly available are required for the track, traction power, and signal systems. Track and signal systems will follow typical North American railroad practice; and it should be possible to recruit qualified staff from that source. Electric utilities may provide a source of employees experienced in the maintenance of high voltage power systems; but training is likely to be required in the care of the overhead distribution system.

Security staff may be drawn from experienced local law enforcement personnel.

Opportunities for using private contractors should be used where advantageous. Examples include heavy repairs on LRV components (traction motors, compressors, etc.) by electrical equipment service shops, security personnel through private security firms, and fixed facilities maintenance. If MTC operates and/or maintains this LRT system, the work rules for the LRT system should be established independent of bus system work rules.

B. Train Crew Size

Trains will be operated by one person. This is the standard for modern LRT systems. If larger crews are allowed, the economic justification for LRT is likely to be lost.

Swing shift operators may be needed to cover peak periods if headways shorter than the base fifteen-minute service must be operated during AM and PM peaks.

V. SUMMARY

The system policies and conceptual design criteria presented in the preceding sections are based on proven designs used successfully on other LRT projects and appropriate for application in Hennepin County. From this base, a cost effective LRT system can be planned and implemented.

RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY

REQUEST FOR BOARD ACTION

4

Public Works		Board Action Requested Informational distributed to Regional Railroad Authority Citizens Advisory Committee and Midway Corridor Task Force
Originating Department		
K. DeSpiegelaere	2/4/88	
Authorized Signature	Date	
Request Justification		

See attachments with cover letter dated 2/4/88

Budgeting and Accounting		Date / Time Received By
County Attorney		
Risk Manager		
Data Processing		
Previous Action taken on Request		

Comments / Recommendation

Documentation certified complete for:

Committee / Meeting Date	Signature	Date
Committee / Meeting Date	Signature	Date
February 9, 1988	<i>J. L. Henderson</i>	2/4/88
Board Date	Signature	Date

MEMORANDUM

To: Ramsey County Regional Railroad Authority Commissioners
Executive Director Terry Schutten

From: Kathryn DeSpiegelaere *KD*

Subject: Information Distributed to Regional Railroad Authority Citizens Advisory
Committee and Midway Corridor Task Force.

Date: February 4, 1988

At the February 3 meeting of the Midway Corridor Task Force the information attached was distributed. It will be given to the Citizens Advisory Committee at their next meeting on February 9.

1. Generalized capital costs for light rail transit in alternative types of right of way, such as streets, railroads, freeways, elevated and tunnels (Attachment 1).
2. Street capacity information and right of way width information (Attachment 2).
3. St. Paul land use plan information (Attachment 3).
4. The Corridor Task Force reviewed and concurred in a summary of the group's actions at its January 28 meeting (Attachment 4).

Recommendation:

For your information.

KD:sw

MIDWAY CORRIDOR
LRT PLANNING ANALYSISBRW, INC.
REVISED 2/3/88GENERALIZED CAPITAL COSTS FOR LIGHT RAIL TRANSIT IN
ALTERNATIVE TYPES OF R-O-W

TYPE OF ROW/ LRT OPERATION	TYPICAL CONSTRUCTION COST PER MILE ^{1/} (MILLIONS)
TWO-WAY LRT ON ONE STREET ^{2/}	\$7 TO \$11
ONE-WAY LRT ON TWO STREETS ^{3/}	\$9 TO \$13
RAILROAD RIGHT-OF-WAY ^{3/}	\$5 TO \$8
FREEWAY SIDE SLOPES ^{4/}	\$20 TO \$25
AERIAL	\$25 TO \$30
TUNNEL ^{5/}	\$55 TO \$75

ABOVE COSTS ARE FOR PURPOSE OF COMPARING ALTERNATIVE ALIGNMENTS ONLY.

- 1/ COSTS DO NOT INCLUDE RIGHT-OF-WAY, VEHICLES, YARDS AND SHOPS, PARKING, OR OTHER SPECIAL ITEMS
- 2/ ASSUMES TWO STATIONS PER MILE
- 3/ ASSUMES ONE STATION PER MILE
- 4/ BASED ON ESTIMATE FOR I-35W IN HENNEPIN COUNTY. MAY NOT BE APPLICABLE TO I-94.
- 5/ BASED ON A ONE-MILE TUNNEL. COSTS WILL VARY CONSIDERABLY DEPENDING ON CONDITIONS AND LENGTH OF TUNNEL

MIDWAY CORRIDOR
LRT PLANNING ANALYSISBRW, INC.
REVISED 2/3/88

STREET/HIGHWAY CAPACITY AVAILABILITY

STREET	CURRENT VOLUME (1986/87 ADTS)	CURRENT CAPACITY ^{1/} (DAILY)	CURRENT VOLUME/ CAPACITY	CAPACITY W/LRT	VOLUME/ CAPACITY W/LRT
UNIVERSITY AVENUE	17,100 - 26,250	30,000	0.65 - 0.88	26,000	0.66 - 1.01
MARSHALL	3,600 - 7,300	22,500	0.16 - 0.32	11,500	0.31 - 0.63
SELBY AVENUE	3,700 - 6,600	11,500	0.32 - 0.57	11,500	0.32 - 0.57
WEST 7TH (SHORT LINE TO GRAND)	15,000	22,500	0.67	11,500	1.30
WEST 7TH (GRAND TO KELLOGG)	21,000	22,500	0.93	11,500	1.82
GRAND AVENUE	18,000	22,500	0.80	11,500	1.56
I-94 FRONTAGE ROADS	1,800 - 7,200	11,500	0.16 - 0.63	11,500	0.16 - 0.63

VOLUME/CAPACITY > 0.90 IS TYPICALLY CONSIDERED AN UNACCEPTABLE
LEVEL OF SERVICE IN AN URBAN AREA.

1/ GENERALIZED CAPACITY BASED ON ASSUMED TRAVEL CHARACTERISTICS.
CAPACITY WILL VARY DEPENDING ON ACTUAL TRAVEL CHARACTERISTICS
OF STREET.

MIDWAY CORRIDOR
LRT PLANNING ANALYSIS

BRW, INC.
REVISED 2/3/88

STREET RIGHT-OF-WAY WIDTHS

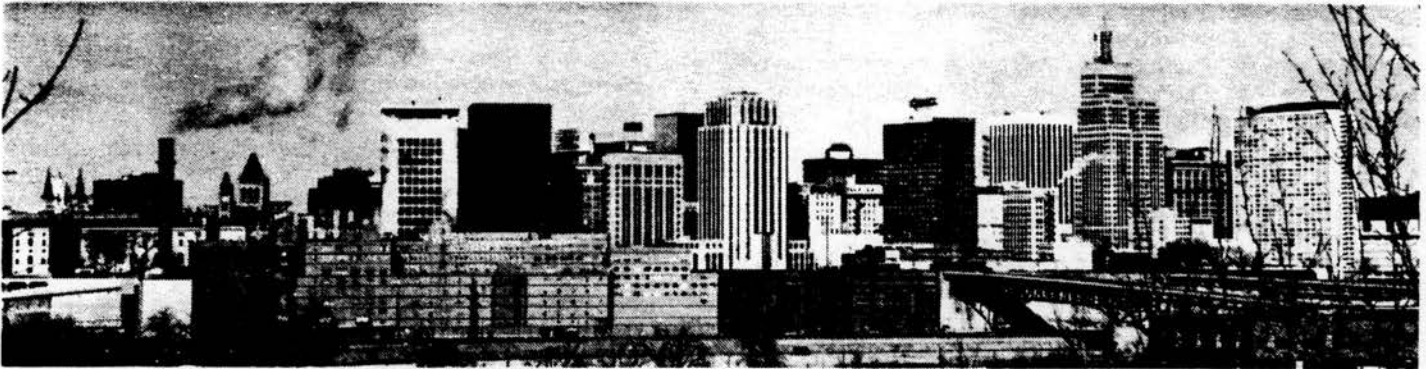
STREET	SEGMENT	ROW WIDTH (FEET)	TYPICAL STREET WIDTHS (FEET)
UNIVERSITY AVE.	0 RICE ST. TO 0 WASHINGTON AVE.	120	94
MARSHALL AVE.	0 SHORT LINE TO VICTORIA	100	52
	0 VICTORIA TO SUMMIT	66	32
DAYTON AVE.	0 VICTORIA TO SUMMIT	66	36
SELBY AVE.	0 SHORT LINE TO VICTORIA	80	44
	0 VICTORIA TO DALE	60	44
	0 DALE TO SUMMIT	66	44
WEST 7TH ST.	0 SHORT LINE TO GRAND	80	56
	0 GRAND TO KELLOGG	86	56
GRAND AVENUE	0 I35E TO WEST 7TH	66	50

A PLAN FOR LAND USE

Adopted by Saint Paul Planning Commission 9-12-80
Adopted by Saint Paul City Council 11-20-80



Comprehensive Plan
Public Systems
Planning Division
City of Saint Paul



SUMMARY

A major city function is to allocate land to most efficiently meet the changing space demands created by human activities within St. Paul. The Land Use Plan will be St. Paul's guide to evaluating proposed changes in the locations and intensities of various types of land use activities. By anticipating and planning for change, the city can encourage and support actions that will continue to make St. Paul an attractive place to live and work. To do this the city will maintain its commitment to neighborhood stability, economic development, and energy efficiency. The Land Use Plan will also act as the basis from which the city can redirect proposals for change that might otherwise negatively affect the quality of life in the city. The policies set forth in this plan, therefore, are guidelines for the changes anticipated in the 1980s.

CITY CHARACTER AND ENVIRONMENT

While St. Paul seeks to accommodate shifting land use demands, it must protect the character of the city and manage its environmentally sensitive areas. To do this, the city will:

1. Identify and protect important landmarks and physical features, historic sites, and views and vistas.
2. Improve neighborhood identity, protecting the scale and intensity of development, and promoting good design and landscaping.
3. Improve connections to downtown, re-establishing continuous development from adjacent neighborhoods.
4. Enforce ordinances dealing with land use conflicts and nuisances.
5. Do subarea water drainage plans.
6. Control excavation and filling, and development in sensitive areas.

MIXED USE CLUSTERS

Creating sites in St. Paul for intense mixed use development offers the best approach for St. Paul to meet competing land use demands. Mixed use clusters are possible in the downtown, as part of major retail areas and in new employment/housing opportunity areas in St. Paul. To support mixed use clustering, St. Paul will:

1. Study each mixed use cluster opportunity area to determine its planning, market, and financial feasibility for clustering.
2. Establish the necessary controls and incentives, to encourage mixed use clustering on feasible sites.

HOUSING

The number of separate households in St. Paul is projected to grow from 109,400 in 1980 to 112,000 in 1990. To meet demands for more varied housing opportunities, the city will take the following land use actions:

1. Encourage the supply of new high density housing in designated mixed use cluster areas.
2. Establish criteria for allowing higher density new housing and conversion of older single family homes in existing residential areas.
3. Maintain the quality, character, and good physical condition of the present residential areas in St. Paul.

COMMERCE

St. Paul's commercial areas were developed under different economic, demographic, and transportation patterns. Each commercial area needs the flexibility to maintain attractive settings for St. Paul shoppers and residents. To enhance St. Paul's commercial areas, the city will do the following:

1. Support expansion of commercial opportunities in the designated mixed use cluster areas.
2. Support neighborhood and mixed use strip areas to maintain their commercial activities.
3. In neighborhood and mixed use strips, allow conversion of unused commercial space for housing and other non-commercial uses.
4. Enforce existing ordinances and regulations pertaining to business location and operations.
5. Investigate performance standards and bonding procedures to maintain compatibility in mixed use areas.

INDUSTRY

70,000 jobs in St. Paul are dependent on activities occurring in the industrial areas of the city. The city will maintain its stock of industrial land but seek to use it more efficiently. To accomplish these objectives the city will do the following:

1. Encourage the retention and development of labor intensive light industries.
2. Assist industries who desire to expand or relocate within St. Paul.
3. Encourage conditions which allow the mixing of appropriate light industry with housing and commercial activities.

RECREATION AND OPEN SPACE

Shifts in recreational demand are being caused by a resident population with fewer children, more athletically active adults, and more seniors. These groups may cause changes in recreation demand at St. Paul's parks. The city will meet changing demands for recreation by:

1. Maintaining and upgrading existing facilities rather than expanding park space.
2. Limiting expansion to areas defined in the Parks and Recreation Plan and to opportunities to obtain land for a linear park system in the city.

INSTITUTIONAL LANDS

Institutions such as schools, churches, colleges and clubs provide major assets to St. Paul. In many cases they create open space for the city's residents. The growth or abandonment of institutional property in St. Paul has created some problems. To manage growth or reuse of institutions the city will:

1. Discourage expansion of institutional uses into land being used for housing, commercial, or industrial activities.
2. Give preference to conversion of vacated institutional land to residential uses, including allowing flexibility in zoning controls related to new uses in vacated institutions.

TRANSPORTATION

The railroad lines and airports in St. Paul have a major effect on access to the city and on adjoining land uses. They not only attract various types of commercial and industrial enterprises but also create restrictions to development. In order to protect these important transportation activities but also to promote appropriate development, the city will do the following:

1. Study railroad land uses and seek protection of rail corridors and development of excess rail lands.
2. Work with the Metropolitan Airports Commission and develop master plans for Minneapolis-St. Paul and Holman Airfields.

COMPOSITE MAP

The majority of land in St. Paul will remain in the same use with the implementation of this plan. The following composite land use map shows the major areas for change addressed in the Land Use Plan. In addition to the mixed use cluster areas, the map shows the commercial and industrial activity areas. In addition the map shows large vacant sites suitable for higher density housing. The Land Use Plan's implementation will concentrate activities in these areas.

The remainder of the map indicates the stable residential areas of the city. These will continue to show incremental changes as small sites are filled in or housing is maintained or rehabilitated. These areas will continue as a lower intensity mixture of commercial, institutional and recreational uses as well as the predominant underlying residential use.

The composite map shown here is generalized to show only major development areas. Individual maps in the Land Use Plan should be consulted for more specific information on policies for the City.

CONTENTS

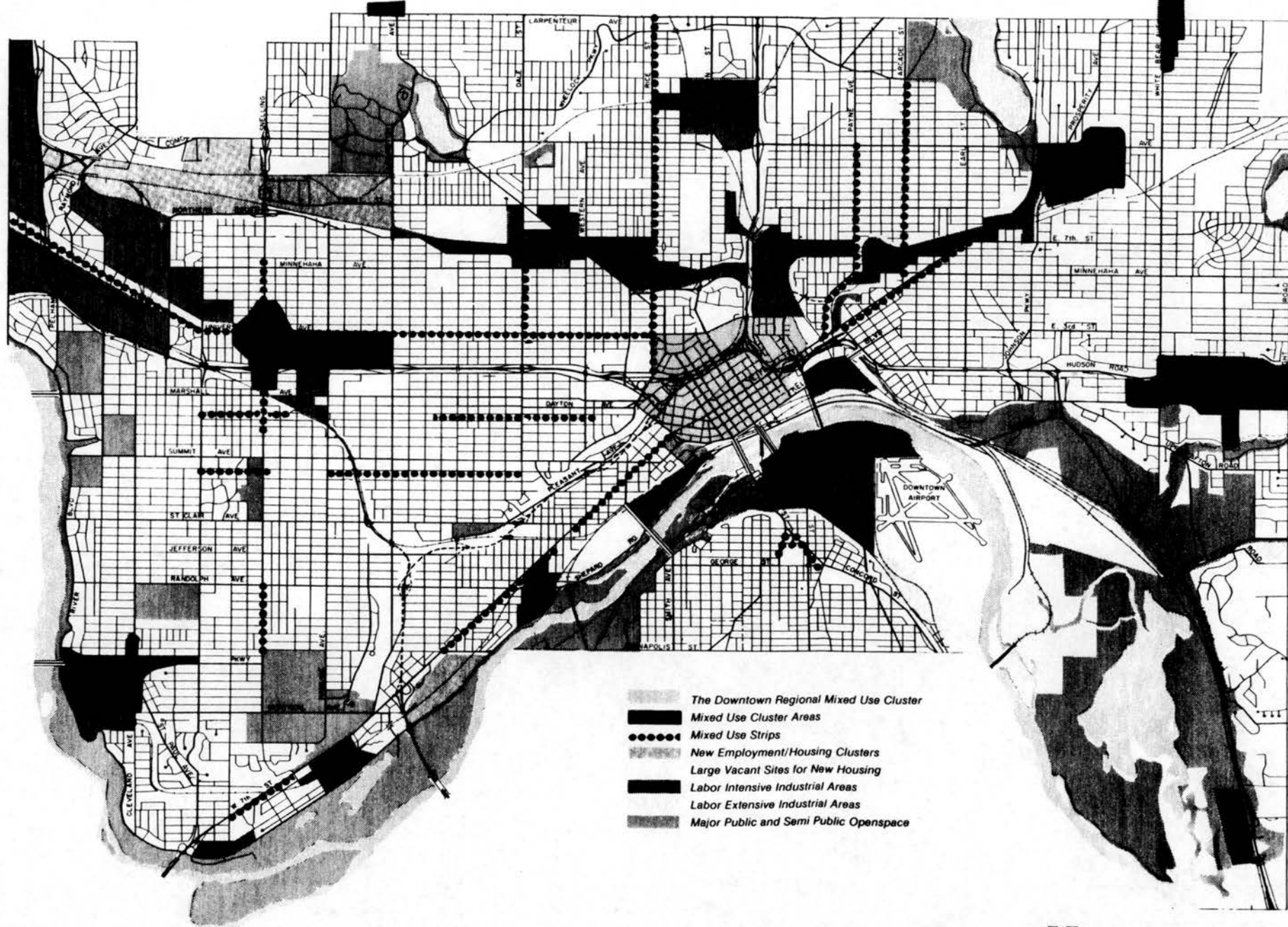
1	Summary
3	Introduction
5	City Character
5	Prominent Sites and Buildings (1.1)
8	Heritage Preservation Sites and Districts (1.2)
10	Vital Neighborhoods (1.3)
10	Quality Design (1.4)
11	Connections to Downtown (1.5)
12	Environmental Management
12	Management of Sensitive Resources (2.1)
14	Management of Control of Major Development (2.2)
15	Solar Access (2.3)
16	Meeting Land Use Demands
16	Land Demand in the 1980s (3.1)
16	Mixed Use Clusters (3.2)
19	Implementing Cluster Development (3.3)
20	Directions For Land Use
20	Residential Land Uses (4.1)
24	Commercial Land Uses (4.2)
29	Industrial Land Uses (4.3)
32	Recreation and Open Space Land (4.4)
34	Institutional Lands (4.5)
36	Transportation Land Uses (4.6)
39	Implementation
39	Development Activities
39	Studies
40	Programs
40	Official Controls
40	Intergovernmental Relations
40	Departmental Responsibilities

CREDITS

James Bellus, AICP, Planning Administrator
Peggy Reichert, Principal Planner

Steve Grochala, AICP, Planner-in-Charge
Joyce Levine, AICP
Patricia James
Allen Lovejoy
Larry Soderholm, AICP
William Butz

Map 1 Composite Land Use Map



0 2000 4000 6000 FEET
1 MILE

Midway Corridor Task Force
Summary of Actions Taken at January 28, 1988 Meeting

Alignment 1 - Northern Burlington Northern Railroad

Recommended for elimination from further consideration because:

1. The narrow right of way would not allow parallel use of LRT and freight trains without major construction of retaining walls and some right of way acquisition.
2. Joint use of tracks for LRT and freight trains is not feasible with current volume of freight use, 70 trains per day.
3. Burlington Northern Railroad has said that the right of way is not available.
4. The Southern Burlington Northern Railroad alignment offers a possibility for wider right of way to accommodate parallel operation of LRT and freight trains.

Alignment 5 - Marshall Avenue and Dayton Avenue

Recommended for elimination from further consideration because:

1. The right of way is somewhat restrictive in the eastern portion and would require one-way operation on two residential streets.
2. The loss of boulevard and parking areas, some mature trees and restriction of driveway access would be unacceptable.

Alignment 5A - Selby Avenue

Recommended for elimination from further consideration because:

1. The right of way is prohibitive on at least two segments of the street. Sidewalks, boulevards and driveway access would be impacted.

Alignment 6 - Short Line with West Seventh Street access to Downtown St. Paul

Recommended for elimination pending development of additional information because:

1. Right of way may be available along the Short Line segment of the railroad tracks.
2. The West Seventh Street portion of the alignment has traffic capacity restrictions that would increase with LRT operations. LRT would require the elimination of some on-street parking and may limit access to adjacent land uses. There is little available space for off-street parking.
3. Railroad right of way from West Seventh Street to Downtown St. Paul is, according to the Soo Line, not available. Direct access to Downtown St. Paul could not be provided because of the difference in elevation between the Soo Line tracks and Kellogg Boulevard in the Downtown area.
4. Right of way width along I-35E should be examined in greater detail to allow consideration of that alignment as an alternative route to West Seventh Street. A general cost estimate for elevating this portion of the alignment should be available for the task force's consideration.

Alignments on Burlington Northern (most southerly track), University Avenue and I-94 will receive more detailed consideration by the task force. Additional information will be developed on the Short Line alignment relating to the portion from West Seventh Street to Downtown St. Paul.

RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY

REQUEST FOR BOARD ACTION

5

Budgeting & Accounting Originating Department <i>James Van Houtt</i> 2/4/88 Authorized Signature Date	Board Action Requested Approval of payment of \$2,921.61 for Attorney Services for 1987.
--	---

Request Justification

See attached Invoice 04520 County of Ramsey, Dept. County Attorney dated 1/288 for services rendered by Ramsey County Attorney's Office for period of January 1, 1987 through December 31, 1987 in amount of \$2,921.61.

Budgeting and Accounting	<i>Ed Blauhtz</i>	<i>2/4/88</i>
County Attorney	NA	Date / Time Received By
Risk Manager	NA	
Data Processing	NA	
Previous Action taken on Request		

Comments / Recommendation

Documentation certified complete for:

Committee / Meeting Date	Signature	Date
Committee / Meeting Date	Signature	Date
February 9, 1988	<i>J L Blundin</i>	2/4/88
Board Date	Signature	Date

ACCOUNTS PAYABLE

(1) CHARGE TO: Dept. RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY Date January 27, 1988

(2) Appropriation Item Attorney Services

WARRANT NO.

For Accounting Use Only

Claim #		Date Paid	
CA		1.	
1-2	3-7	8	9-14

(3) Code

RFC	Fund	Dept	Object	Amount
R87	591	59101	020174	2,921.61
15-17	18-20	21-25	26-31	32-41

2,921.61

Total

(4) PAY TO: 2 *18400

8 First Name & Initial 9-22

RAMSEY COUNTY

Last Name or Firm Name 23-52

TAXATION & RECORDS

53-76

3

8 Address 9-32

City

State

33-54

Zip Code

55-59

Vendor ID 60-71

(5) On Check Stub Put: 4 Invoice M 04520 Credit: ACC 40601 300908

9-60

5

Attorney services for 1987

9-60

For Risk Management
Use Only

6

8

9-24

Last Name First Name

(6) SEND TO:

Address

Use only if Payee and/or
Address differs from
Item 4

(7) Attach to the back of this form: Original Invoices, Receipts, Certified Claims or other documents. Invoice M 04520

Preparer's Signature: Ed Glantz

(8) I declare that the above materials and/or services have been received, are for Ramsey County, allowed by law, and approved for payment.

Authorized Signature: Ed Glantz

NOTE: The vendor's Social Security Number will be used to report taxable income to the Internal Revenue Service. This data is considered private under Minnesota Statutes 15.165, but we will not be able to process this claim without it.

COUNTY OF RAMSEY
DEPARTMENT OF County Attorney

INVOICE NUMBER

M 04520

1-6

INVOICE

MAKE CHECK PAYABLE TO RAMSEY COUNTY
FORWARD TO 138 COURT HOUSE
ST. PAUL, MN 55102

				ACCT. USE ONLY	
DEPT.	REV. CODE	T	C	REG. DATE	AMOUNT
7-11	12-17	18	19	20-25	26-35
40601	300908	2	1		\$2,921.61
		2	1		
		2	1		
		2	1		\$2,921.61
TOTAL DUE:					

NAME Regional Railroad Authority
36-75 (Last Name or Firm Name) (First)

ADDRESS 36 Courthouse
29-52

53-76 Attention: Ed Glaubitz

20-28 Social Security No.

IMPORTANT

TO ENSURE PROPER CREDIT
PLEASE DETACH AND RETURN THIS PORTION WITH PAYMENT

IMPORTANT

RAMSEY COUNTY DEPT. OF County Attorney

INVOICE NO. **M 04520**

DATE	QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT										
1/22/88		This bill is for services rendered by the Ramsey County Attorney's Office. It covers the time period of January 1, 1987 through December 31, 1987. <table><tr><td><u>ATTORNEY</u></td><td><u># OF HOURS</u></td></tr><tr><td>Ashbaugh</td><td>26.75</td></tr><tr><td>Sullivan</td><td>16.50</td></tr><tr><td>Timmons</td><td>3.00</td></tr><tr><td>Total Hours</td><td><u>46.25</u></td></tr></table> 46.25 x \$63.17/hr = \$2,921.61 Prepared by Barb Peterson 1/22/88	<u>ATTORNEY</u>	<u># OF HOURS</u>	Ashbaugh	26.75	Sullivan	16.50	Timmons	3.00	Total Hours	<u>46.25</u>		2,921.61
<u>ATTORNEY</u>	<u># OF HOURS</u>													
Ashbaugh	26.75													
Sullivan	16.50													
Timmons	3.00													
Total Hours	<u>46.25</u>													

WHITE-CUSTOMER COPY

PINK-COUNTY ACCOUNTING

BLUE-COUNTY TREASURER

GREEN-DEPARTMENT COPY

Regional Railroad Authority

Elaine Ashbaugh

Pay Periods	Hours
01	-----
02	-----
03	-----
04	-----
05	-----
06	5.75
*07	8.00
09	4.00
10	1.50
11	-----
12	-----
13	1.00
14	3.50
15	-----
16	-----
17	-----
18	-----
19	-----
20	-----
21	-----
22	-----
23	-----
24	-----
25	-----
26	-----
27	-----
last week '87	-----
*08	3.00
TOTAL	<u>26.75</u>

Michele Timmons

Pay Periods	Hours
01	
02	
03	
04	
05	
06	
07	
08	
09	
10	
11	
12	
13	1.75
14	1.25
TOTAL	<u>3.00</u>

Beth Sullivan

Pay Periods	Hours
01	-----
02	-----
03	-----
04	-----
05	-----
06	-----
07	-----
08	-----
09	-----
10	-----
11	-----
12	-----
13	-----
14	-----
15	-----
16	4.75
17	3.25
18	1.00
19	1.75
20	-----
*21	-----
23	-----
24	2.50
25	3.00
26	.25
27	-----
last week '87	-----
*22	-----
TOTAL	<u>16.50</u>

Pay Periods	Hours
15	-----
16	-----
17	-----
18	-----
19	-----
20	-----
21	-----
22	-----
23	-----
24	-----
25	-----
26	-----
27	-----
Last week '87	-----
TOTAL	<u>-----</u>

RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY

REQUEST FOR BOARD ACTION

6

Budgeting & Accounting

Originating Department

James Van Houdt
Authorized Signature

2/4/88

Date

Board Action Requested

Request for short term loans from Ramsey County to meet expenses until tax collections are received.

Request Justification

See attached: Memo from J. Van Houdt dated January 26, 1988
Proposed Resolution - Ramsey County Regional Railroad Authority
Proposed Resolution - Ramsey County Board

Budgeting and Accounting

Ed Blauht 2/4/88

County Attorney

NA

Michele L. Ginnons 2/5/88

Risk Manager

NA

Data Processing

NA

Date / Time

Received By

Previous Action taken on Request

Comments / Recommendation

Documentation certified complete for:

Committee / Meeting Date

Signature

Date

Committee / Meeting Date

Signature

Date

February 9, 1988

Board Date

J L Glendinning
Signature

2/4/88

Date



Office of
BUDGETING AND ACCOUNTING

Room 36, Court House
St. Paul, Minnesota 55102
298-4196

MEMORANDUM

TERRY SCHUTTEN
Executive Director

JAMES H. VAN HOUDT
Director - Budgeting & Accounting

MARLEN D. JOHNSON
Accounting Manager

VERNON H. WEHLAGE
Budget Manager

DATE: January 28, 1988

TO: Terry Schutten, Executive Director

FROM: *JVH* James Van Houdt, Director-Budgeting & Accounting

SUBJECT: Regional Railroad Authorities Cash - January 22, 1988

The Ramsey County Regional Railroad Authority received a loan of \$25,000 from the Ramsey County General Fund for operations until tax funds are available for the Railroad Authority. The Regional Railroad Authority levied \$125,000 in taxes to be collected in 1988. The first installment of this tax will not be received until May 15, 1988.

At the end of 1987, and early in 1988, the Regional Railroad Authority has been billed for services provided to the Authority by Ramsey County Departments. Payment of these expenses has reduced the cash balance of the Authority to the point where cash may not be available to meet expenses prior to receipt of the tax payment in May, 1988.

The cash situation as of January 22, 1988, is:

Loan:	\$25,000.00
Paid through December 31, 1988	<u>(6,248.47)</u>
Balance December 31, 1988	18,751.53
Payments to January 22, 1988:	
Transportation Planner 10-5-87 - 12-31-87	(9,937.34)
Duplicating - December, 1987	<u>(10.45)</u>
Cash Available January 22, 1988	8,803.74
Invoices to be paid:	
Executive Director's Department	(1,770.74)
July - October (two invoices)	(915.90)
County Attorney's Dept Jan - Dec 1987	<u>(2,921.61)</u>
Cash Balance not committed:	3,195.49

There will be a need for payments for expenses in connection with the Corridor Task Force - Midway Corridor, Transportation planner services, and other expenses in 1988.

In order to have cash available for these needs, I recommend that the Ramsey County Regional Railroad Authority request approval from Ramsey County for short-term cash loans when they are needed, not to exceed the authorized tax levy. These temporary loans are to be repaid when taxes are collected.

JVH:EG:dks/xhe



Resolution Board of

RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY

Date: _____

No. _____

WHEREAS, the Ramsey County Regional Railroad Authority has levied a tax of \$125,000 to be collected in 1988, and

WHEREAS, tax collections are May 15 and October 15, at which time Ramsey County will distribute tax receipts to the Ramsey County Regional Railroad Authority, and

WHEREAS, the Ramsey County Regional Railroad Authority needs to gather the information and studies which have been done on Light Rail Transit within Ramsey County and outside of Ramsey County, and

WHEREAS, the \$25,000 advanced from Ramsey County for this purpose is nearly exhausted, and additional expenses will arise before the tax is distributed, and

WHEREAS, the Ramsey County Budgeting and Accounting Department does the accounting for the Ramsey County Regional Railroad Authority, they shall initiate short term loans as needed, and repay these loans when sufficient funds are on hand, NOW THEREFORE BE IT

RESOLVED, that the Ramsey County Regional Railroad Authority requests Ramsey County to advance the funds necessary to pay the expenses of the Ramsey County Regional Railroad Authority, the total not to exceed the tax levy of the Ramsey County Regional Railroad Authority. The advanced sums shall be repaid with interest at a rate equal to the average yield on County investment during the life of any sums loaned. The Budgeting and Accounting Office will repay these loans when sufficient Ramsey County Regional Railroad Authority funds are available.

John T. Finley, Chairman

By _____
Warren W. Schaber, Secretary

Resolution

Board of
Ramsey County Commissioners

Presented By _____ Date _____ 1988 No. _____
Attention: _____

WHEREAS, the Ramsey County Regional Railroad Authority has levied a tax of \$125,000 to be collected in 1988, and

WHEREAS, tax collections are May 15 and October 15, at which time Ramsey County will distribute tax receipts to the Ramsey County Regional Railroad Authority, and

WHEREAS, the Ramsey County Regional Railroad Authority needs to gather the information and studies which have been done on Light Rail Transit within Ramsey County and outside of Ramsey County, and

WHEREAS, the \$25,000 advanced from Ramsey County for this purpose is nearly exhausted, and additional expenses will arise before the tax is distributed, and

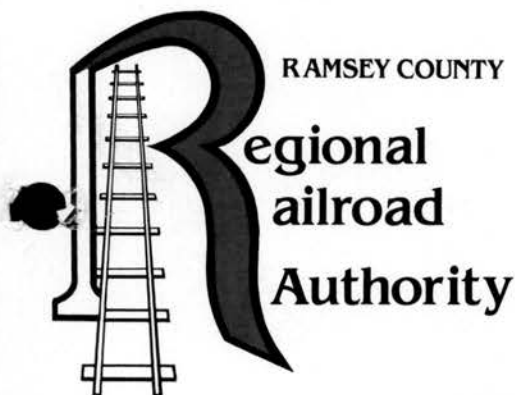
WHEREAS, the Ramsey County Budgeting and Accounting Department does the accounting for the Ramsey County Regional Railroad Authority, they shall initiate short term loans as needed, and repay these loans when sufficient funds are on hand, NOW THEREFORE BE IT

RESOLVED, that the Ramsey County Board of Commissioners authorize the Executive Director to loan funds to the Ramsey County Regional Railroad Authority from Fund Balance in the County Revenue Fund, pursuant to their request for short term loans while they are awaiting tax collections; and FURTHER

RESOLVED, that the funds so advanced shall be repaid with interest at a rate equal to the average yield on County investments during the life of the sums loaned.

WARREN W. SCHABER, Chairman

By _____
Chief Clerk - County Board



John T. Finley, Chairman

District 3

Diane Ahrens

District 4

Ruby Hunt

District 5

Duane W. McCarty

District 1

Hal Norgard

District 7

Donald E. Salverda

District 2

Warren W. Schaber

District 6

AGENDA

RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY

Room 316 Courthouse
15 W. Kellogg Blvd.
St. Paul, MN 55102
Phone 298-4145

Tuesday, February 23, 1988

11:00 A.M. - Conference Room 316

1. Minutes of February 9, 1988 meeting
2. Chairman's Comments
3. Coordination with Citizens Advisory Committee Corridor Task Force
 - Attachment 1 - Population and Employment Data
 - Attachment 2 - Transit Dependent Data
 - Attachment 3 - Hennepin County Alignment Recommendations
 - Attachment 4 - Conceptual Costs of Alternative Alignments
4. Review process for Midway Corridor Light Rail Transit Study
5. Appointment to Midway Corridor Task Force
6. Burlington Northern Railroad Abandonment - Discussion
7. Joint Meeting Ramsey County Regional Railroad Authority and Regional Transit Board - February 29, 1988, 4:00 P.M. - Room 316 Court House

MINUTES

RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY

MEETING

FEBRUARY 9, 1988

The meeting of the Board of the Ramsey County Regional Railroad Authority was held on Tuesday, February 9, 1988 at 10:05 A.M. in the Conference Room of 316, Court House. Chairman Finley called the meeting to order.

MEMBERS PRESENT: Chairman John Finley
 Commissioner Diane Ahrens
 Commissioner Ruby Hunt
 Commissioner Duane McCarty
 Commissioner Hal Norgard
 Commissioner Donald Salverda
 Commissioner Warren Schaber

ALSO PRESENT: Beth Sullivan represented the County Attorney's Office
 Frances Glendenning

1. Minutes - of the January 26, 1988 meeting.

Commissioner Salverda moved the following recommendation, seconded by Commissioner Norgard.

The Ramsey County Regional Railroad Authority approves the minutes of the meeting of January 26, 1988, as written.

Roll Call: Ayes - 7, Nays - 0
Motion adopted.

2. Chairman's Comments

Chairman Finley discussed the February 8th meeting with the Regional Transit Board. He felt it was a good meeting, and he appreciated that everyone showed up, with the exception of Commissioner Schaber who was tied up due to the weather, etc. Part of the documentation for today's meeting was discussed at the meeting yesterday. They did a very good job in the presentation, the RTB, Katie Turnbull, Kathey DeSpiegelaere, and the consultant, BRW.

Commissioner Ahrens cannot see how this information will be narrowed into a framework all within two weeks. Chairman Finley said he had given a talk to the Midway Task Force, and at that time he told them that this Board would probably feel more comfortable if the Task Force

took more time, and needed a few more meetings, they should feel free to add them to their schedule. Mr. Armstead who was appointed Chairman said they really would like to gear in on University. Chairman Finley suggested that they keep an open mind, and get more data on the Northern route along Pierce Butler Road and keep it open. He would like to have them keep an open mind on the 94 Corridor which is a good alternative, as they are talking about on the frontage roads on 94, this is a possibility, there is a lot of room there. This has not been discussed. Also, as far as the short line, Chairman Finley said his interest in the southern route is only as it connects downtown with Shepard Road, and a connection in the future with the airport. The hassle about whether it can't be on West Seventh Street, this does not concern him, but dropping down on to the Shepard Road Corridor, those tracks, just coming into the downtown area, we do not want to cut off the alternative of never being able to connect the airport to downtown.

Chairman Finley suggested to get all the data they can on the four alternatives-they take more time.

Commissioner Hunt commented that if we do ever get light rail, there is always a possibility in the future they may move the airport.

3. Information Distributed to Regional Railroad Authority Citizens Advisory
4. Committee and Midway Corridor Task Force, dated 2/3/88, and 2/4/88

Chairman Finley said this information was distributed through the Corridor Task Force, and the Advisory Committee. This is good data, there is good background in it, and many of these things were addressed at the meeting with the RTB yesterday. The designs, light rail being in the middle of the street, on one side of the street, or on two curbs, they have different designs for different widths - these were discussed yesterday, and give us some very elementary background.

Commissioner Schaber asked about the actions of the Midway Task Force, whether we use the BN Northern Railroad, and if Chairman Finley is in concurrence with that. Chairman Finley said Ms. DeSpiegelaere was asking whether or not we should concur on a fragmented basis, or whether we should wait until they come in with recommendations, and then question it. He did not know how to speak for the Board.

Commissioner Schaber gathered from the information that there were only the southerly track, I-94 and University Avenue were the only ones they were going to be looking at. Apparently they have in effect eliminated the others.

Chairman Finley added that they also did Marshall and Selby Avenue which we were not really looking at to begin with. The northern route that they eliminate was an after thought also, that was principally to see if we could connect into the low income areas of McDonough and Mt. Airy as it came back down south, but they say the trackage is used too much.

Chairman Finley said he does not know if we should vote on those separately as concurring, or whether or not we should wait until the whole recommendation is finished.

Commissioners Norgard and Hunt suggested that we wait. Chairman Finley said if it is the consensus, we will wait on those, it does not make any difference, it may be just as well that we wait, and look at all the recommendations. Then, we will be able to go back and ask why they did eliminate a proposed corridor, and then the criterias for eliminating each one.

Kathy DeSpiegelaere informed the Committee that with this recommendation, the consultant would not be collecting any information on three alignments, the northern BN, Marshall and Selby, so you would be seeing no more data on these. Commissioner Norgard thinks this is all right.

Chairman Finley reiterated that Selby and Marshall at this level had never considered them to begin with, or Summit Avenue, either.

Chairman Finley again mentioned the documentation which was discussed at the meeting with the RTB, this is valuable information, and he does hope that all members will have an opportunity to read it.

5. Approval of payment of \$2,921.61 for Attorney services for 1987.

Commissioner Salverda moved the following recommendation, seconded by Commissioner Ahrens.

The Ramsey County Regional Railroad Authority approves the payment of Invoice No. 04520 dated 1/22/88, for services rendered by the Ramsey County Attorney's Office for the period of January 1, 1987 through December 31, 1987.

Roll Call: Ayes - 7, Nays - 0
Motion adopted.

6. Request for short term loans from Ramsey County to meet expenses until tax collections are received.

Commissioner Salverda moved the following recommendation, seconded by Commissioner Ahrens.

The Ramsey County Regional Railroad Authority approves the resolution for the request for short term loans from Ramsey County to meet expenses until tax collections are received.

Roll Call: Ayes - 7, Nays - 0
Motion adopted.

Chairman Finley had just received an Attachment 4-1, BRW, January 19, 1988, Potential Public Revenue Sources, was this the information that we received two weeks ago at the Board Meeting by Miller Schroeder. Ms. DeSpiegelaere said this was, and this was updated last nite by our Budgeting & Accounting, so the material distributed at the joint meeting was most current information. She will see that everyone receives a copy of this revised data.

Chairman Finley asked Ms. DeSpiegelaere how she feels the Task Force is working out. Ms. DeSpiegelaere says it is much better than she anticipated. She was really concerned, in particular about the Task Force being on such a short time schedule that they would not comfortable with materials. This past week particularly, they have seemed to come together at the meetings as a group, and they are working well, everyone seems to understand the information, and the Advisory Committee has been meeting since last fall, and working well as a group, they are putting in a lot of time meeting.

Chairman Finley said hopefully after we get all of this data done, and accumulated, we will pull back, and take some time and analyze this and ask questions.

Commissioner McCarty asked how deep are they getting into design information, Ms. DeSpiegelaere said at this point they are not getting into this very deep, they are telling the Committees that the alignment is considered first, they are not getting into stations. It is not likely that they would run into a problem, they are given range of widths, that would be acceptable, as well as safety which is a major consideration.

Commissioner Ahrens is concerned about the way it is structured, that the Transit Board may be picking up operating costs, the operating costs should clearly determine where the corridor is, as if you do not have the ridership, then the long term costs are going to be so much greater. She is wondering how are we going to begin to coordinate the two different bodies, as the thought from Hennepin is that the operating costs are going to be picked by a different entity than the group that makes the decision on where the corridor is. How do we begin to get this sort of information into the total picture, somehow we need to get the total picture.

Ms. DeSpiegelaere said the information the Board will be receiving on the remaining alignments, will be what the operating costs will be, also the effect will be on the Metropolitan Transit, the feeder bus lines, all this will be available.

Chairman Finley said by elimination of routes, we will not have the data on those.

Chairman Finley added we have a lot of data on ridership on University Avenue already, so we will have this information as a determining factor, whether we operate it as a County or do not operate it as a County it is still going to be our citizens who will pay for it.

Commissioner Norgard commented that no matter where you put the line, you will have to have parking, they will have to drive to get there, as mass transit is for one reason to get some place in a hurry, and it is usually at quite a distance. Commissioner Hunt said that parking for people coming by car is only one factor, there may be more coming by bus.

Chairman Finley said the bus feeder system is why Hennepin County is thinking of the Metropolitan Transit Commission operating the light rail transit, because the bus feeder system appears from studies which he has read is the key to the success of light rail transit. So, the coordination of the operation is what makes it or breaks it. The San Diego system is coordinated with the bus, and they wait for light rail to come. Light rail operates 99% on time, and the bus fluctuates. It is very important that the same entity or authority has control of the total mass transit system.

Commissioner McCarty asked how the suburban feeder lines will be affected, will he be in competition. Chairman Finley said he may be in business as he is now, or he may be in competition.

There being no further matters to come before the Board, Chairman Finley adjourned the meeting.

RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY

REQUEST FOR BOARD ACTION

2

Chairman Finley _____ Originating Department John T. Finley _____ Authorized Signature Date 2/18/88	Board Action Requested CHAIRMAN'S COMMENTS
Request Justification	

UPDATE

Budgeting and Accounting _____

County Attorney _____

Risk Manager _____

Data Processing _____

Previous Action taken on Request _____

Date / Time
Received By

Comments / Recommendation

Documentation certified complete for:

Committee / Meeting Date

Committee / Meeting Date
 February 23, 1988
Board Date

Signature

Signature
J L Blendenbury
Signature

Date

Date
 2/18/88
Date

RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY

REQUEST FOR BOARD ACTION

3

PUBLIC WORKS		Board Action Requested
Originating Department		COORDINATION WITH CITIZENS ADVISORY
<u>K. DeSpiegelaere</u>	<u>2/17/88</u>	COMMITTEE TASK FORCE.
Authorized Signature	Date	

Request Justification

See Attachments: Memo of February 17th - K. DeSpiegelaere
 Attachment 1 - Population and Employment Data
 2 - Transit Dependent Data
 3 - Hennepin County Alignment Recommendations
 4 - Conceptual Costs of Alternative Alignments

Budgeting and Accounting _____
County Attorney _____
Risk Manager _____
Data Processing _____
Previous Action taken on Request _____

Date / Time
Received By

Comments / Recommendation

Documentation certified complete for:

Committee / Meeting Date

Signature

Date

Committee / Meeting Date
 February 23, 1988

Signature

Date

Board Date

Signature

Date
 2/18/88

MEMORANDUM

To: Ramsey County Regional Railroad Authority Commissioners
Executive Director Terry Schutten

From: Kathryn DeSpiegelaere *KD*

Subject: Information Distributed to Regional Railroad Authority Citizens Advisory
Committee and Midway Corridor Task Force

Date: February 17, 1988

At the February 10 meeting of the Midway Corridor Task Force and February 16 meeting of the Citizens Advisory Committee the information attached was distributed. It includes:

1. Population and Employment Data (Attachment 1).
2. Transit Dependent Data (Attachment 2).
3. Hennepin County Alignment Recommendations (Attachment 3).
4. Conceptual Costs of Alternative Alignments (Attachment 4).

Recommendation:

For your information

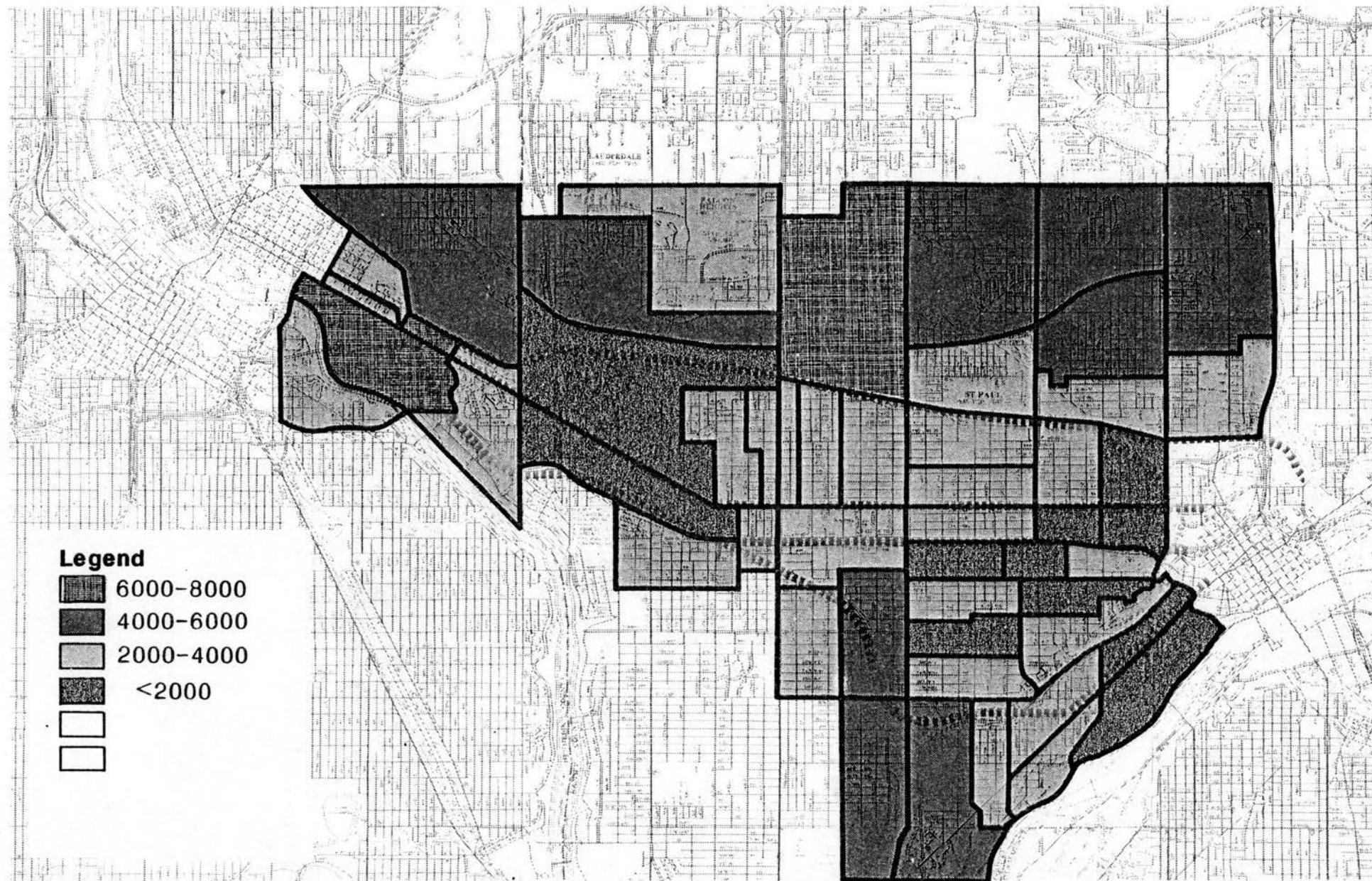
KD:sw

BRW, Inc.
2/10/88

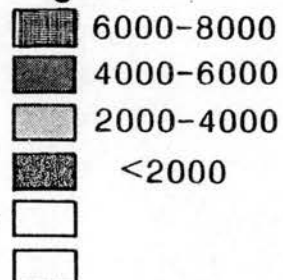
POPULATION AND EMPLOYMENT DATA

POPULATION

- 0 THE AREA WITH THE HIGHEST POPULATION DENSITY IN THE MIDWAY CORRIDOR IS ALONG MARSHALL AVENUE EAST OF LEXINGTON AVENUE AND SOUTH OF I-94. OTHER AREAS WITH A HIGH POPULATION DENSITY INCLUDE THE AREA EAST OF SNELLING AVENUE BETWEEN THE SOUTHERN BN MAINLINE AND UNIVERSITY AVENUE AND THE AREA ALONG THE SHORTLINE AND I-35E ALIGNMENT.
- 0 THE SOUTHERN BN ALIGNMENT IS BOUNDED BY MEDIUM AND HIGH DENSITY POPULATION AREAS. TO THE SOUTH OF THE BN MAINLINE THERE ARE SEVERAL RELATIVELY HIGH DENSITY POPULATION AREAS. THE ACCESS FROM THIS AREA TO A LRT LINE ON THE SOUTHERN BN MAINLINE WOULD BE INHIBITED BY THE PIERCE BUTLER ROADWAY AND THE INDUSTRIAL STRIP BETWEEN THE PIERCE BUTLER ROUTE AND THE SOUTHERN BN MAINLINE. ALSO ALONG THE SOUTHERN BN ALIGNMENT IS ENERGY PARK WHICH INCLUDES SOME MEDIUM TO HIGH DENSITY RESIDENTIAL AREAS. THE 1980 CENSUS POPULATION DATA DOES NOT REFLECT THE RESIDENTIAL DEVELOPMENT IN ENERGY PARK.
- 0 UNIVERSITY AVENUE IS ALSO BOUNDED BY MEDIUM AND HIGH DENSITY POPULATION AREAS. I-94 INHIBITS ACCESS TO UNIVERSITY AVENUE FROM THE RESIDENTIAL AREAS SOUTH OF I-94.
- 0 SOME OF THE HIGHEST POPULATION DENSITIES ARE JUST SOUTH OF I-94 BETWEEN LEXINGTON AND RICE STREET.
- 0 BECAUSE OF ITS LENGTH AND THE FACT THAT IT IS BOUNDED BY MEDIUM TO HIGH DENSITY POPULATION AREAS, A SHORTLINE ALIGNMENT WHICH FOLLOWED I-35E INTO DOWNTOWN ST. PAUL WOULD SERVE THE LARGEST POPULATION BASE OF ANY ALIGNMENT. HOWEVER, A ROUTE ALONG SHEPARD ROAD INTO DOWNTOWN WOULD MISS A LARGE PORTION OF THE POTENTIAL POPULATION BASE.



Legend



Midway Corridor LRT Planning Analysis

RTB
REGIONAL TRANSIT BOARD

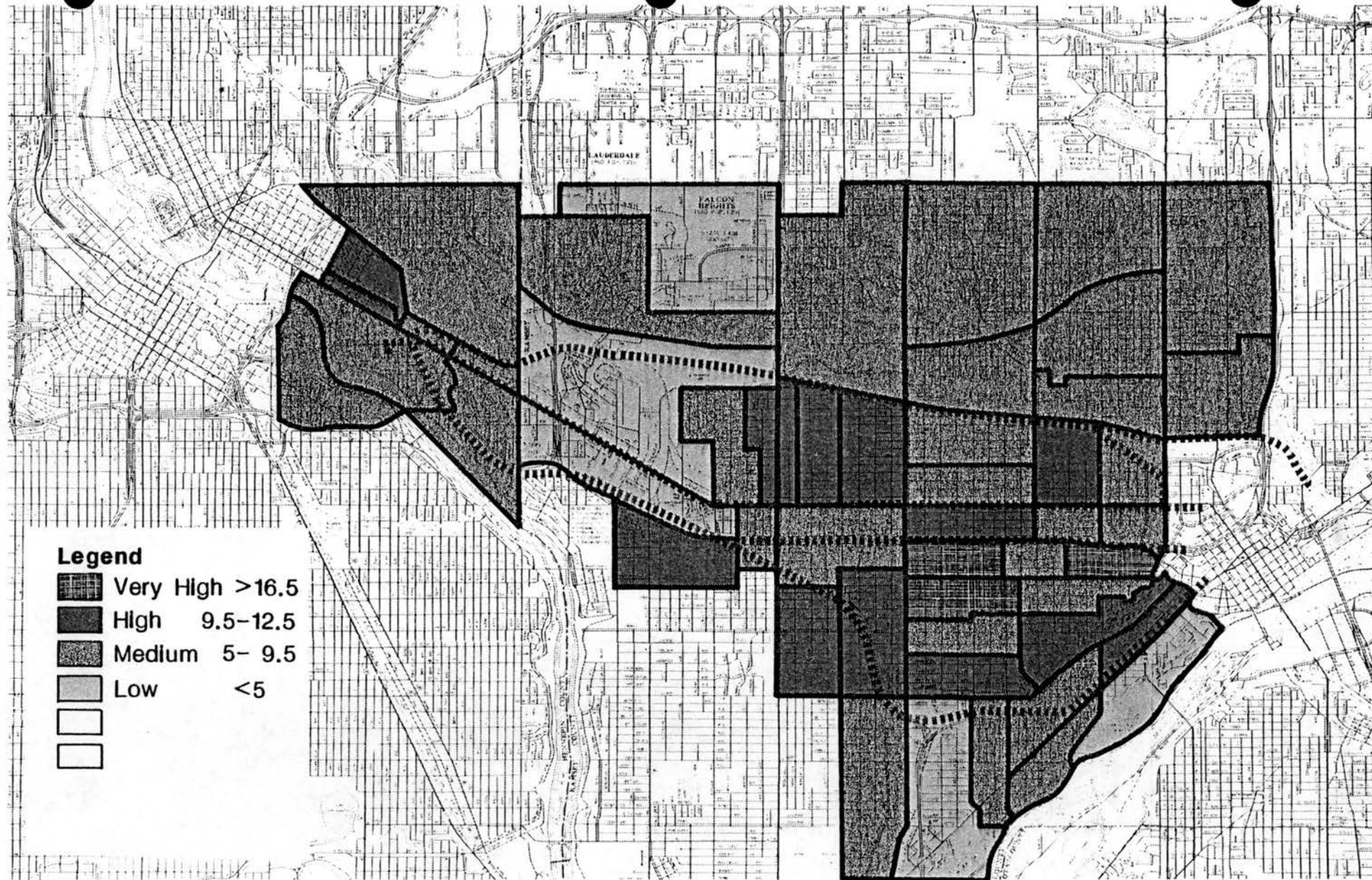


Total Population
1980 U.S. Census Data

0 1000' 1/2 Mile ↑ North



1-2



Midway Corridor LRT Planning Analysis

RTB
REGIONAL TRANSIT BOARD



Population Density
1980 U.S. Census Data

0 1000' 1/2 Mile

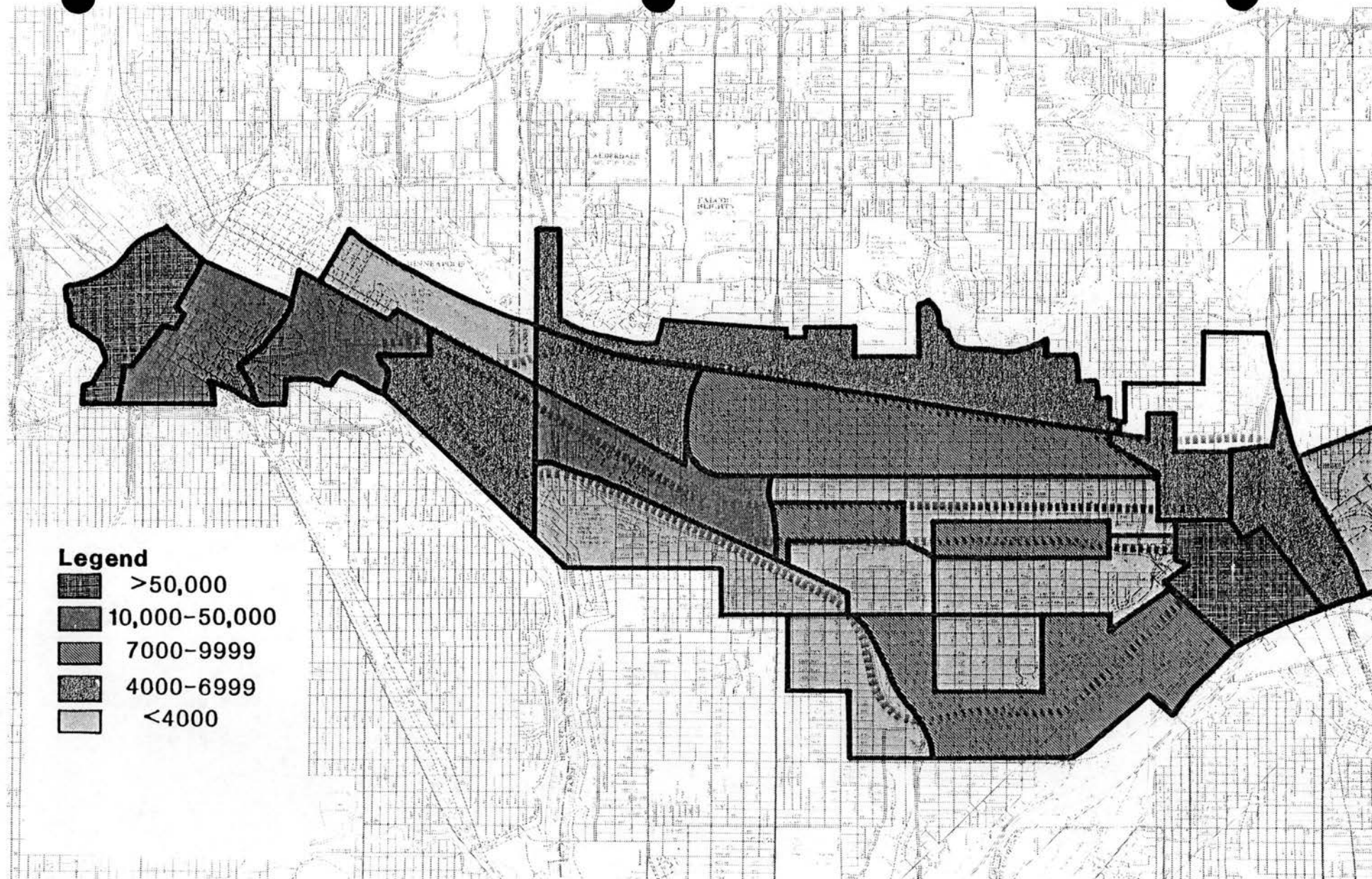


BRW

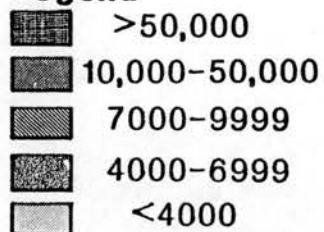
BRW, Inc.
2/10/88

EMPLOYMENT

- 0 THE LARGEST EMPLOYMENT CONCENTRATIONS ARE IN DOWNTOWN MINNEAPOLIS AND DOWNTOWN ST. PAUL. 1980 METROPOLITAN COUNCIL TRAFFIC ANALYSIS ZONE DATA SHOWS APPROXIMATELY 110,000 EMPLOYEES IN DOWNTOWN MINNEAPOLIS AND 53,000 IN DOWNTOWN ST. PAUL.
- 0 THE NEXT LARGEST EMPLOYMENT CONCENTRATIONS ARE THE UNIVERSITY OF MINNESOTA AREA, A STRIP ALONG UNIVERSITY AVENUE FROM JUST WEST OF TH 280 TO LEXINGTON AVENUE, AND THE AREA EAST OF DOWNTOWN MINNEAPOLIS.
- 0 ALONG THE BN ALIGNMENT, THE EMPLOYMENT LEVELS ARE RELATIVELY LOW. HOWEVER, THE BN ALIGNMENT WOULD SERVE ENERGY PARK; THE 1980 DATA DOES NOT REFLECT EMPLOYMENT RELATED TO ENERGY PARK.
- 0 UNIVERSITY AVENUE WOULD SERVE SEVERAL LARGE EMPLOYMENT AREAS, INCLUDING THE MIDWAY AREA NEAR SNELLING AVENUE.
- 0 AN I-94 ALIGNMENT WOULD ALSO SERVE SOME OF THE EMPLOYMENT AREAS BETWEEN UNIVERSITY AVENUE AND I-94, INCLUDING THE MIDWAY AREA AND THE AREA BETWEEN RAYMOND AND PRIOR. HOWEVER, THE SOO LINE TRACKS ARE ON THE SOUTH SIDE OF I-94 WEST OF TH 280 AND THEREFORE THIS ALIGNMENT WOULD NOT SERVE THE EMPLOYMENT WEST OF TH 280 AS WELL AS UNIVERSITY AVENUE.
- 0 THE SHORTLINE ALIGNMENT SERVES SOME OF THE AREA BETWEEN RAYMOND AND PRIOR. MOST OF THE EMPLOYMENT AT THE SOUTHERN PORTION OF THIS LINE IS CONCENTRATED ALONG WEST 7TH.



Legend



Midway Corridor LRT Planning Analysis

RTB
REGIONAL TRANSIT BOARD



1980 Employment Per District

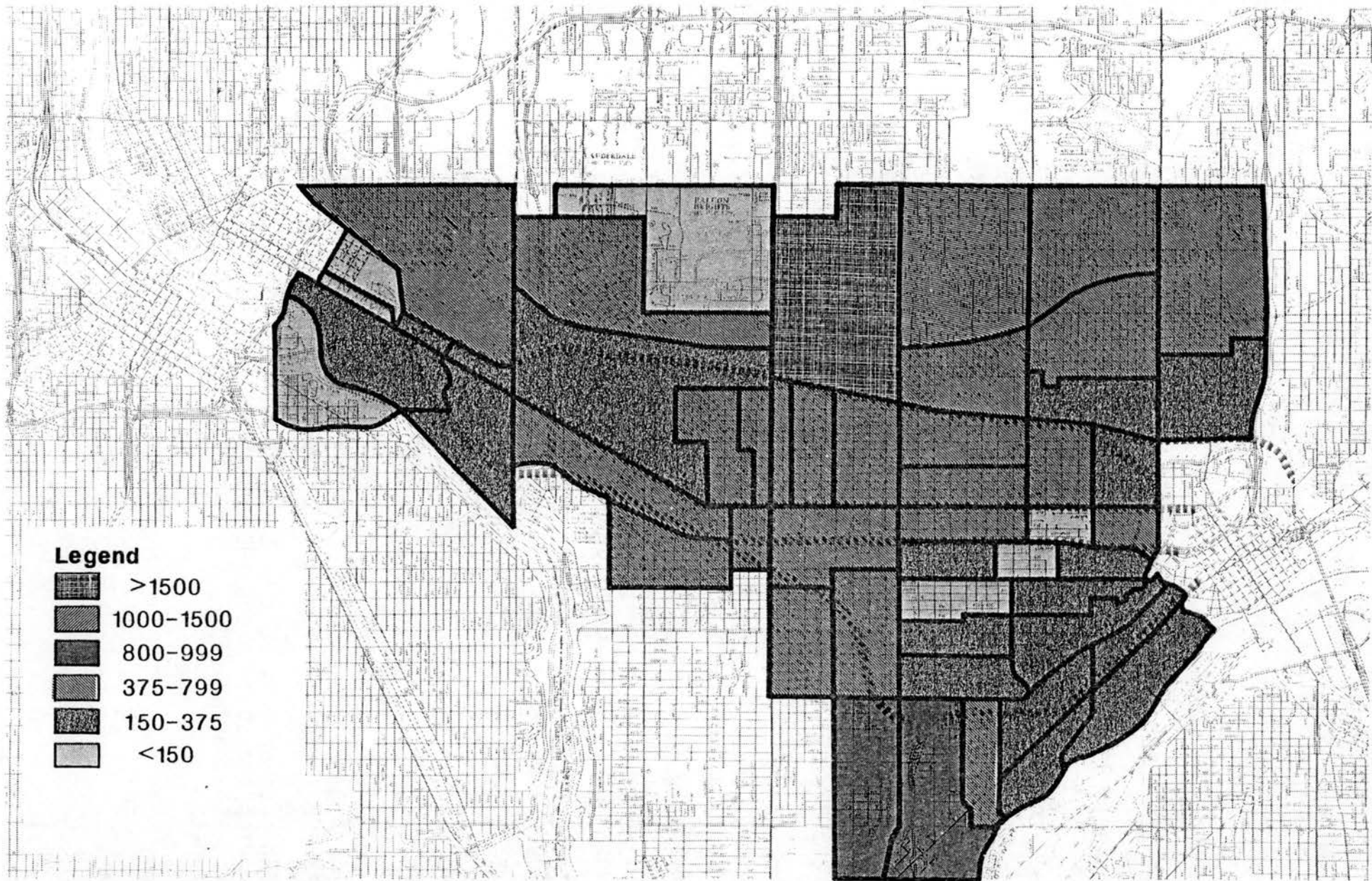
0 1000' 1/2 Mile North



BRW, Inc.
2/10/88

TRANSIT DEPENDENTS

- 0 TRANSIT DEPENDENTS ARE MEASURED BY FOUR INDICES;
 - HOUSEHOLDS WITH INCOME LESS THAN \$10,000
 - HOUSEHOLDS WITH ZERO CARS
 - YOUTH POPULATION UNDER 18 YEARS
 - ELDERLY POPULATION
- 0 THE HIGHEST NUMBERS OF LOW INCOME HOUSEHOLDS ARE ADJACENT TO I-94 FROM SNELLING TO LEXINGTON, NORTH OF THE BN MAINLINE BETWEEN SNELLING AND LEXINGTON, AND BETWEEN RICE AND I-35E IN THE AREA OF THE NORTHERN BN MAINLINE.
- 0 GENERALLY, THE AREA BETWEEN SNELLING AVENUE AND RICE STREET FROM MARSHALL AVENUE NORTH HAS A HIGH NUMBER OF LOW INCOME HOUSEHOLDS.
- 0 A FEW POCKETS OF LOW INCOME HOUSEHOLDS ALSO EXIST ALONG THE SHORTLINE ALIGNMENT.
- 0 THE DATA ON ZERO-CAR HOUSEHOLDS LOOKS VERY SIMILAR TO THE DATA ON HOUSEHOLD INCOME. GENERALLY, THE AREA BETWEEN SNELLING AND RICE STREET FROM MARSHALL AVENUE NORTH HAS A HIGH NUMBER OF ZERO-CAR HOUSEHOLDS.
- 0 THE DATA DOES NOT SHOW ANY UNIQUE CONCENTRATIONS OF YOUTH POPULATION ALONG ANY OF THE ALIGNMENTS. THE HIGHEST NUMBER IS ALONG THE NORTHERN BN MAINLINE BETWEEN RICE AND I-35E. THERE IS ALSO A HIGH NUMBER ALONG A PORTION OF THE SHORTLINE. OTHERWISE, THE YOUTH POPULATION IS FAIRLY UNIFORMLY DISTRIBUTED.
- 0 THE ELDERLY POPULATION IS HIGHEST TO THE NORTH OF THE BN ALIGNMENT AND SOUTH OF THE SHORTLINE ALIGNMENT.
- 0 THE HIGHEST COMBINED TOTAL OF THE FOUR INDICES PLUS PEOPLE IN POVERTY IS ALONG THE NORTHERN BN ALIGNMENT.
- 0 THE AREA OF I-94 BETWEEN SNELLING AND LEXINGTON AND CONTINUING SOUTH ALONG THE SHORTLINE HAS THE NEXT HIGHEST COMBINED TOTAL OF THE TRANSIT DEPENDENT INDICES.



Midway Corridor LRT Planning Analysis

RTB
REGIONAL TRANSIT BOARD



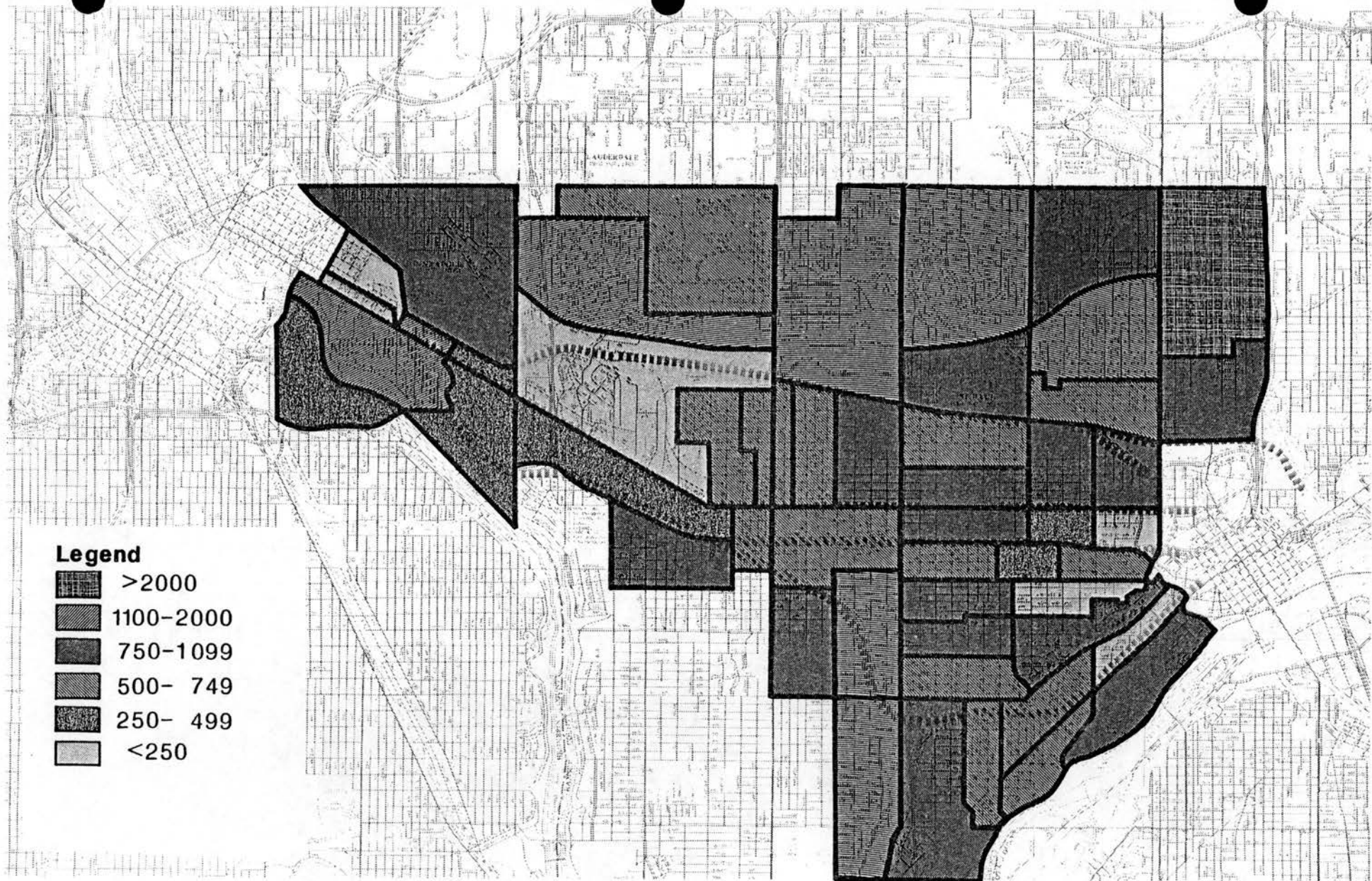
Elderly Population
1980 U.S. Census Data

0 1000' 1/2 Mile

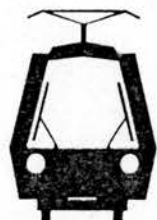
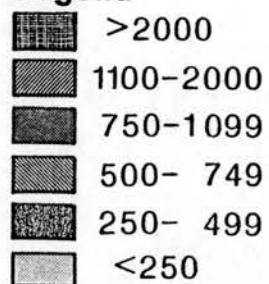


North





Legend



Midway Corridor LRT Planning Analysis

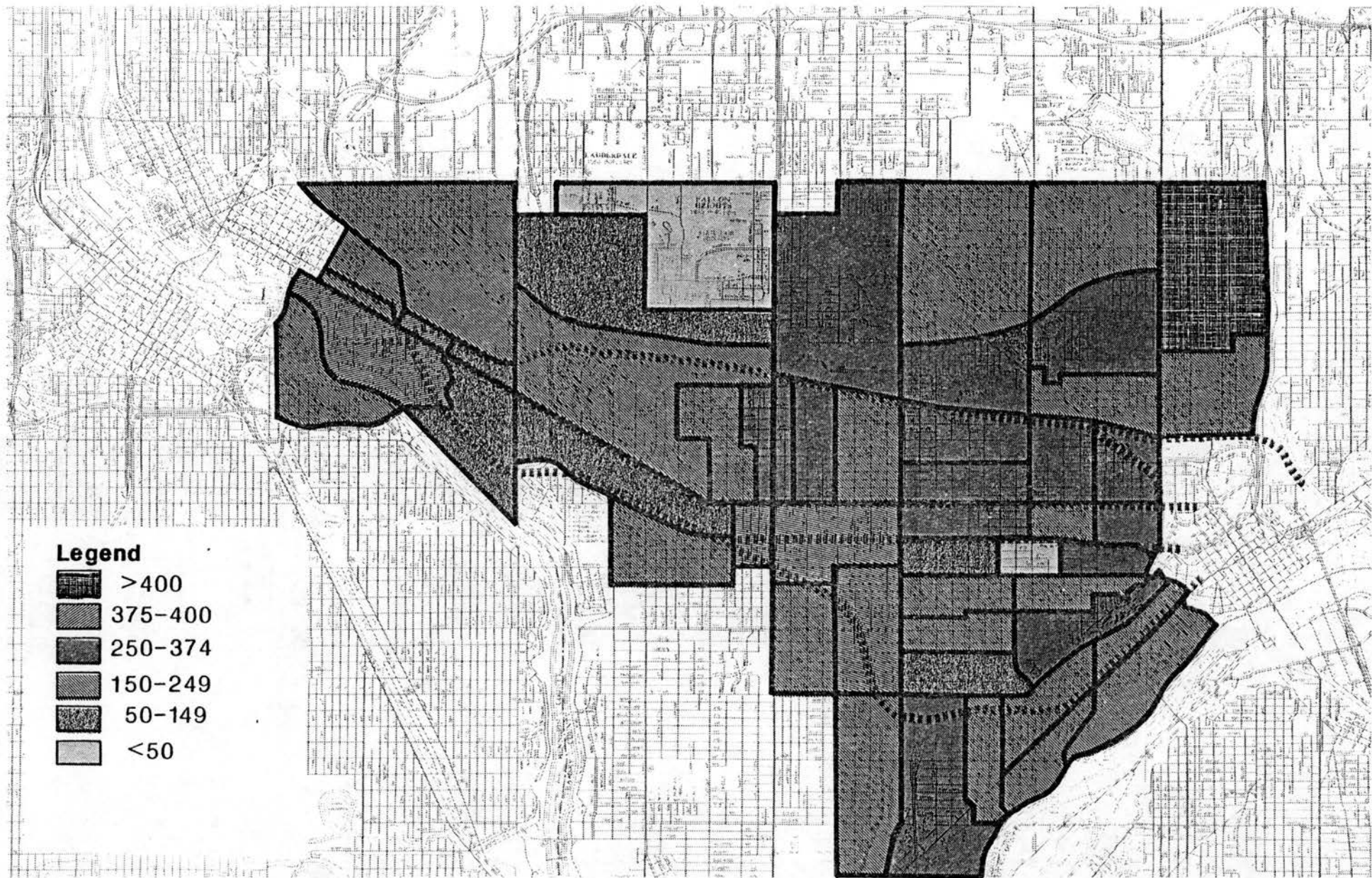
RTB
REGIONAL TRANSIT BOARD



Youth Population
1980 U.S. Census Data

0 1000' 1/2 Mile  North





Number of Zero-Car Households Per Tract
1980 U.S. Census Data



Midway Corridor LRT Planning Analysis

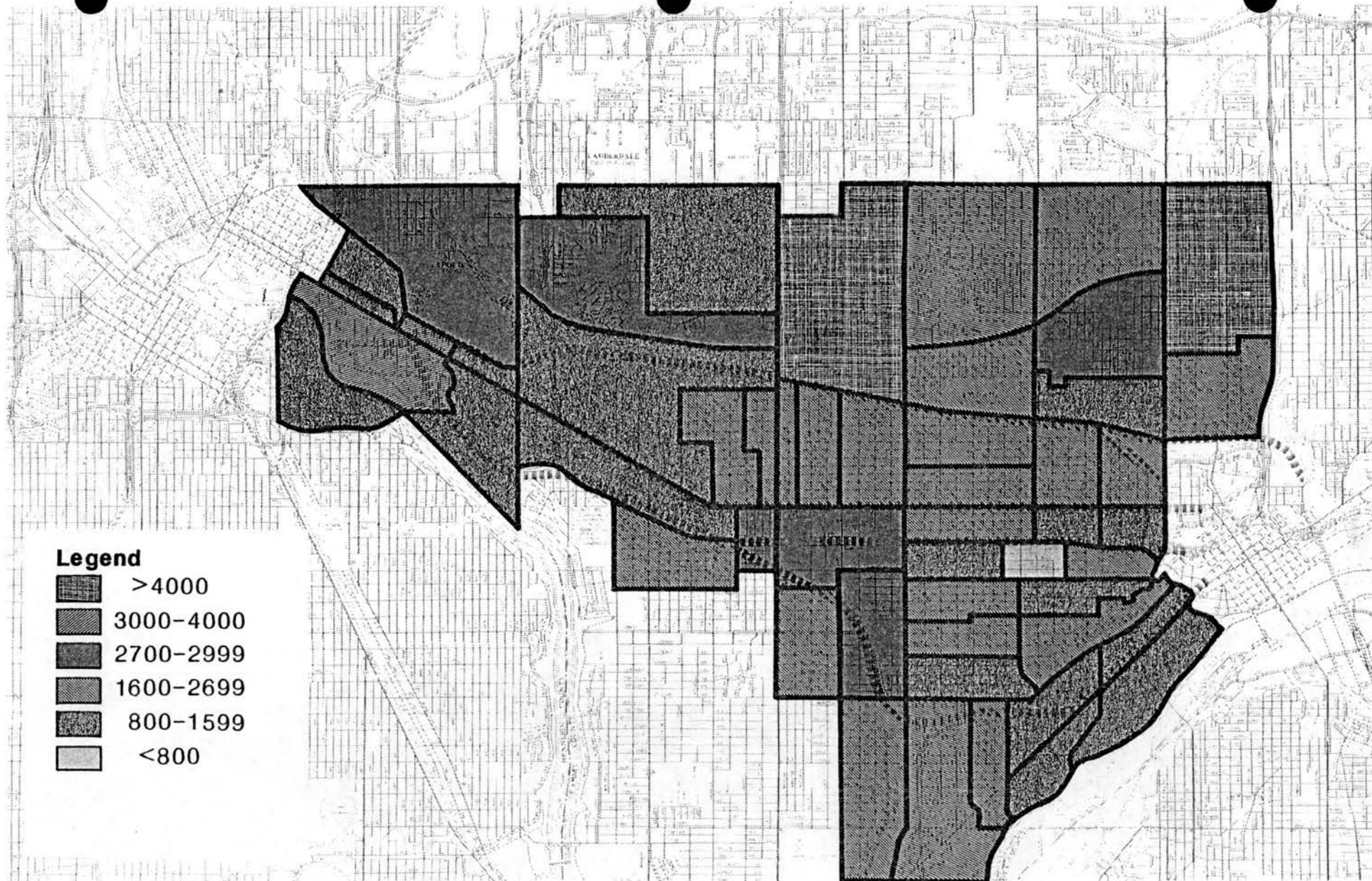
RTB
REGIONAL TRANSIT BOARD



0 1000' 1/2 Mile North

BRW

2-4

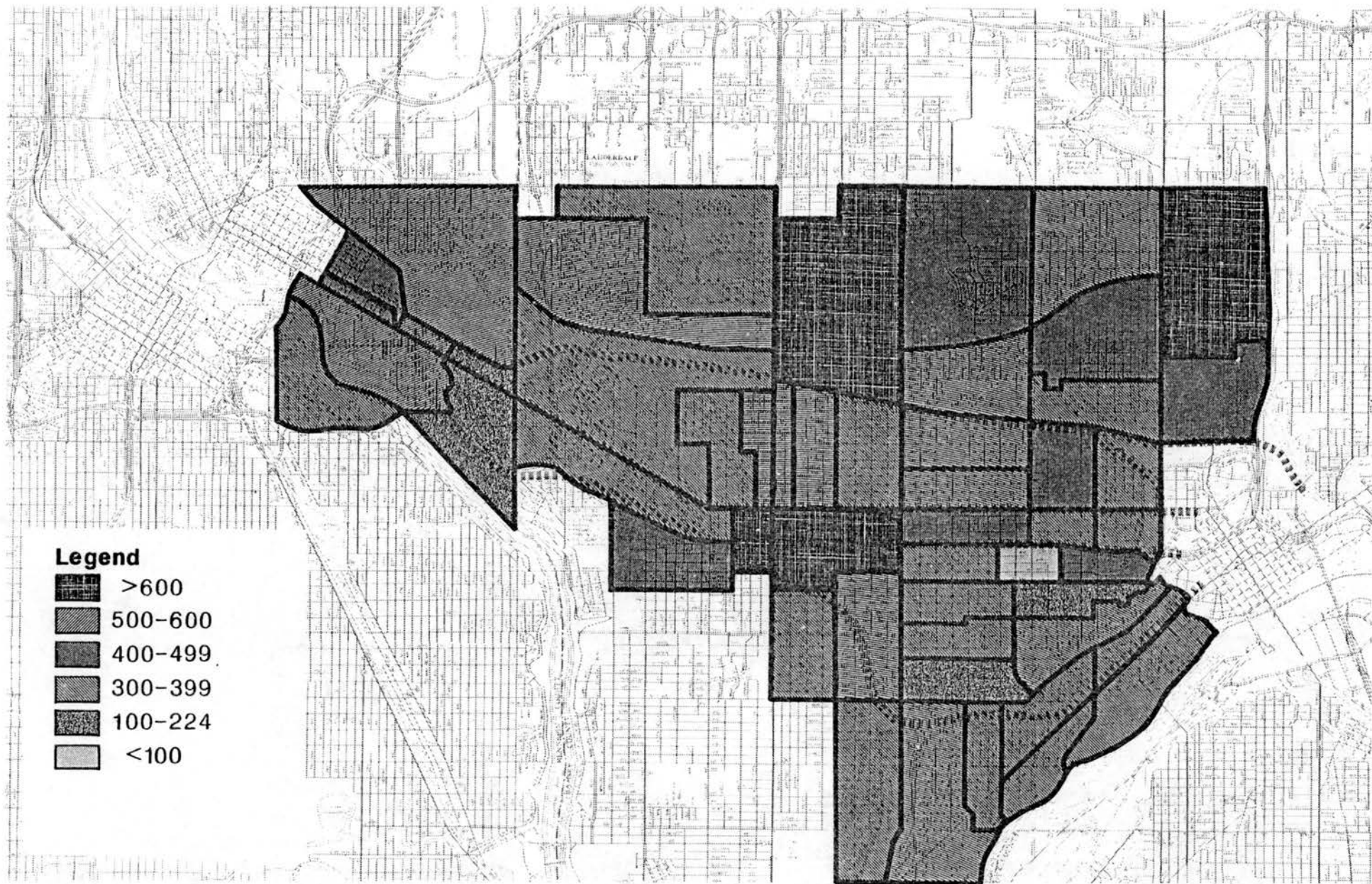


Midway Corridor LRT Planning Analysis

RTB
REGIONAL TRANSIT BOARD



Combined Totals of: 25
 Elderly, Youth, Zero-Car Households,
 Low Income Households (<\$10,000),
 People in Poverty (Official Figures)
 1980 U.S. Census Data



Midway Corridor LRT Planning Analysis

RTB
REGIONAL TRANSIT BOARD

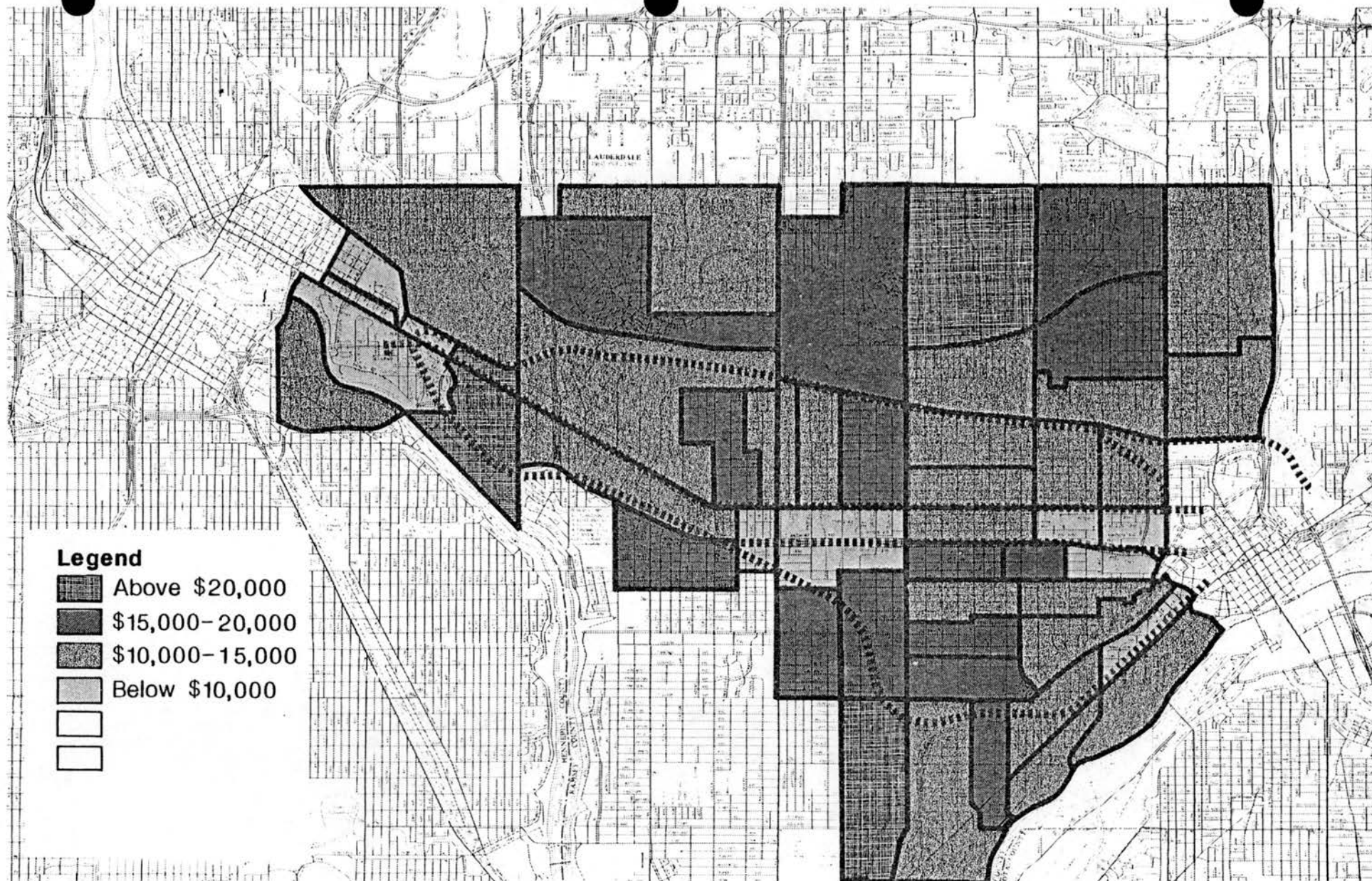


Number of Low Income Households Per Tract
1980 U.S. Census Data

0 1000' 1/2 Mile North

BRW

2-6



Midway Corridor LRT Planning Analysis

RTB
REGIONAL TRANSIT BOARD

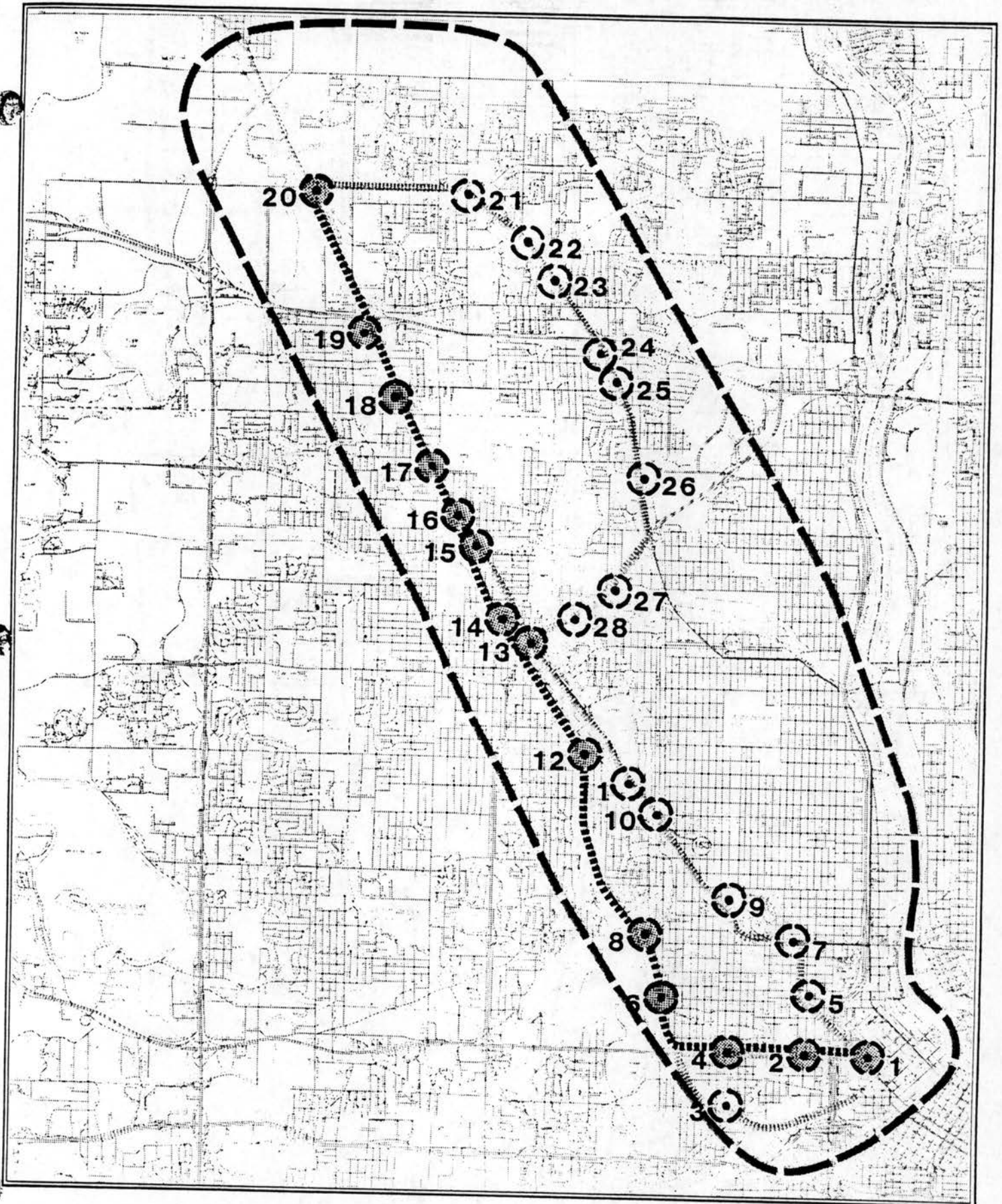


Median Household Incomes in 1979 (Dollars)
1980 U.S. Census Data

0 1000' 1/2 Mile North



2-7



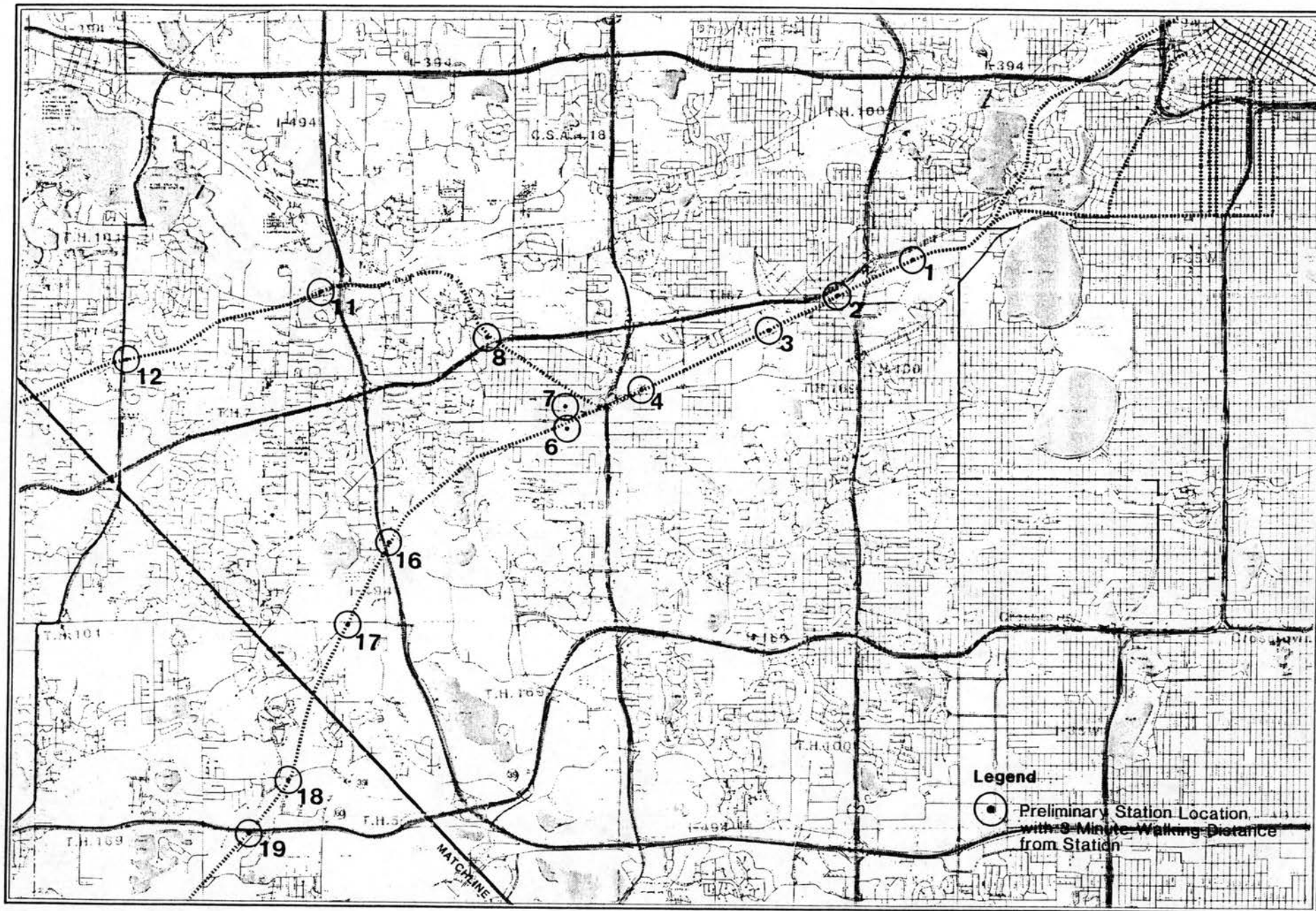
HCRRA
Harris County Regional Rail Authority

Comprehensive
LRT System Plan



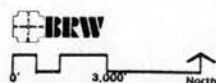
Northwest Corridor

Preliminary Station
Locations



HCRRRA
Houston County Regional Rail Authority

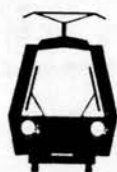
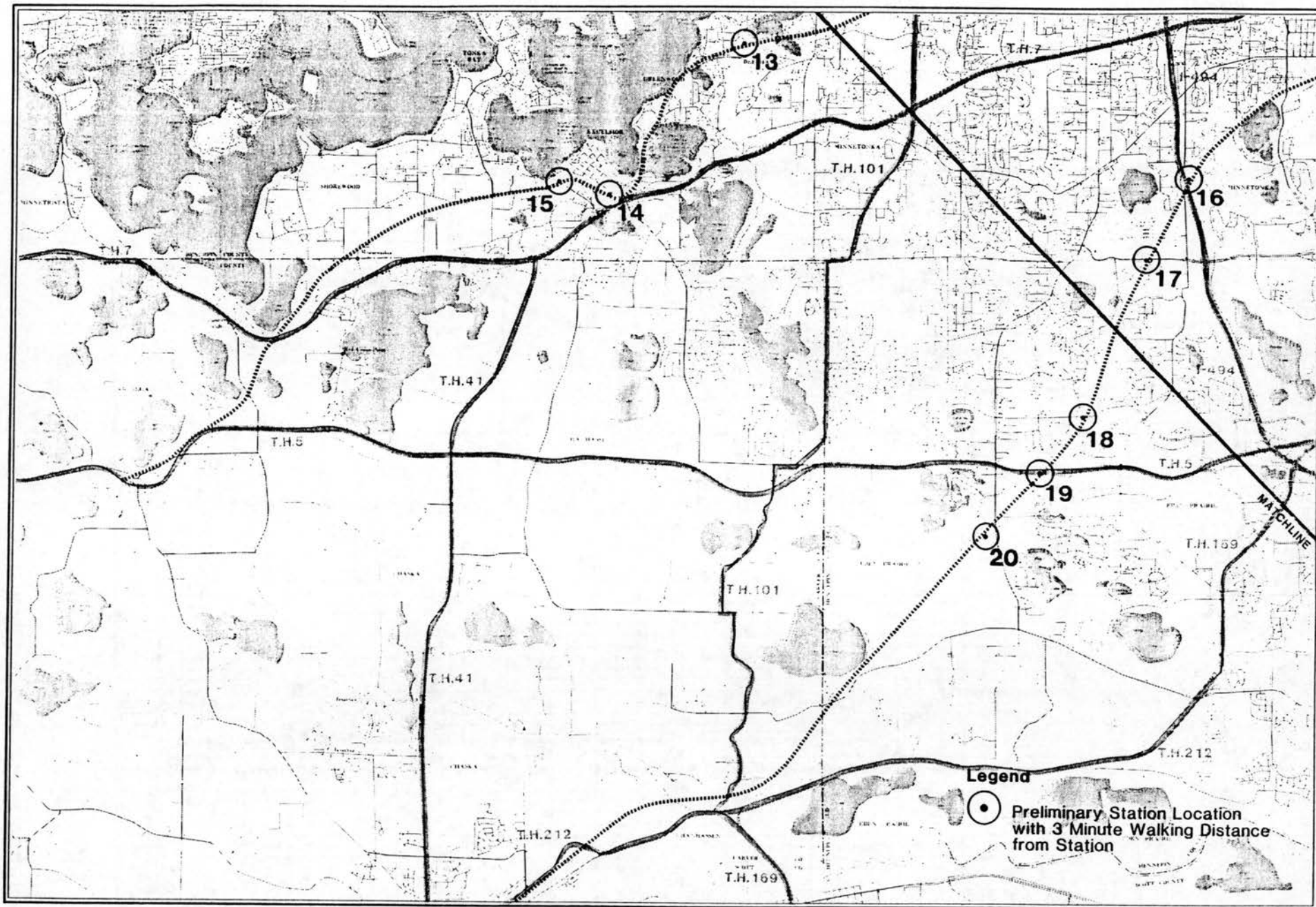
Comprehensive
LRT System Plan



Southwest Corridor
East Suburban Segment

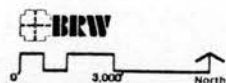
Preliminary Site Locations

25



HCRRA
Hennepin County Regional Railroad Authority

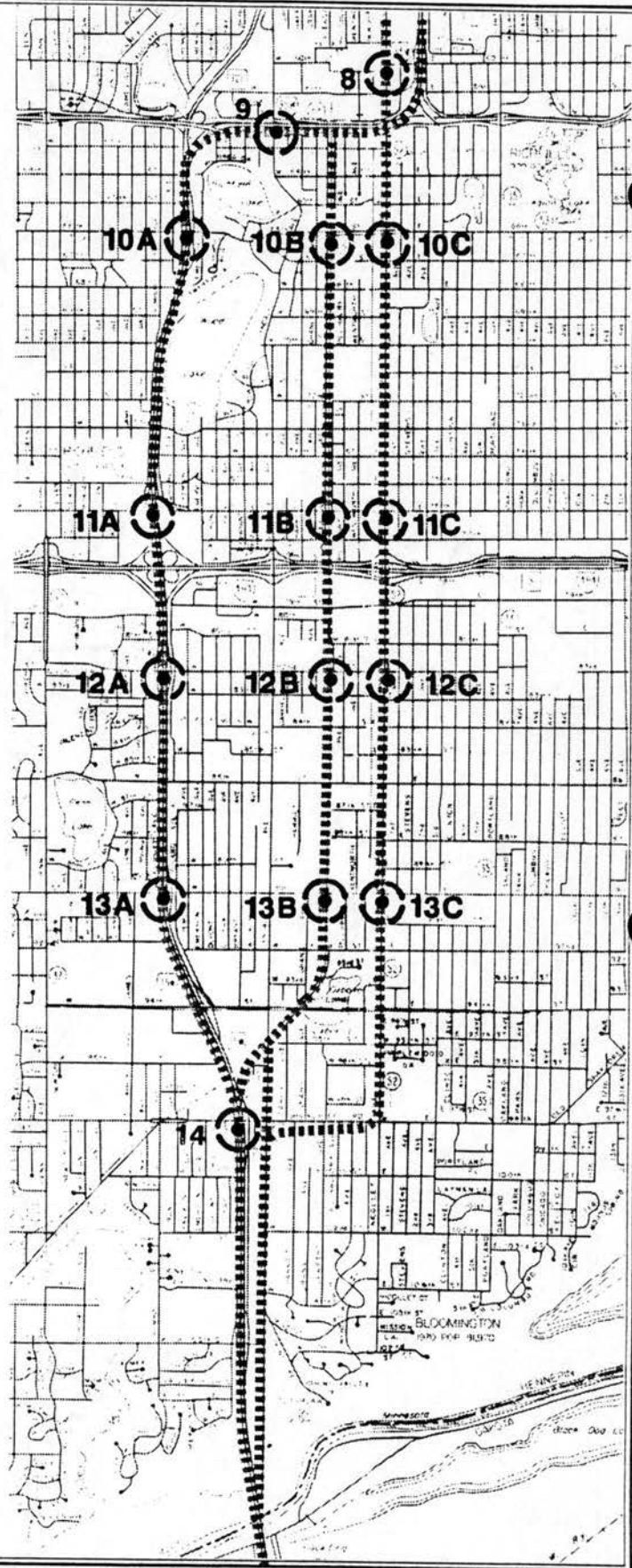
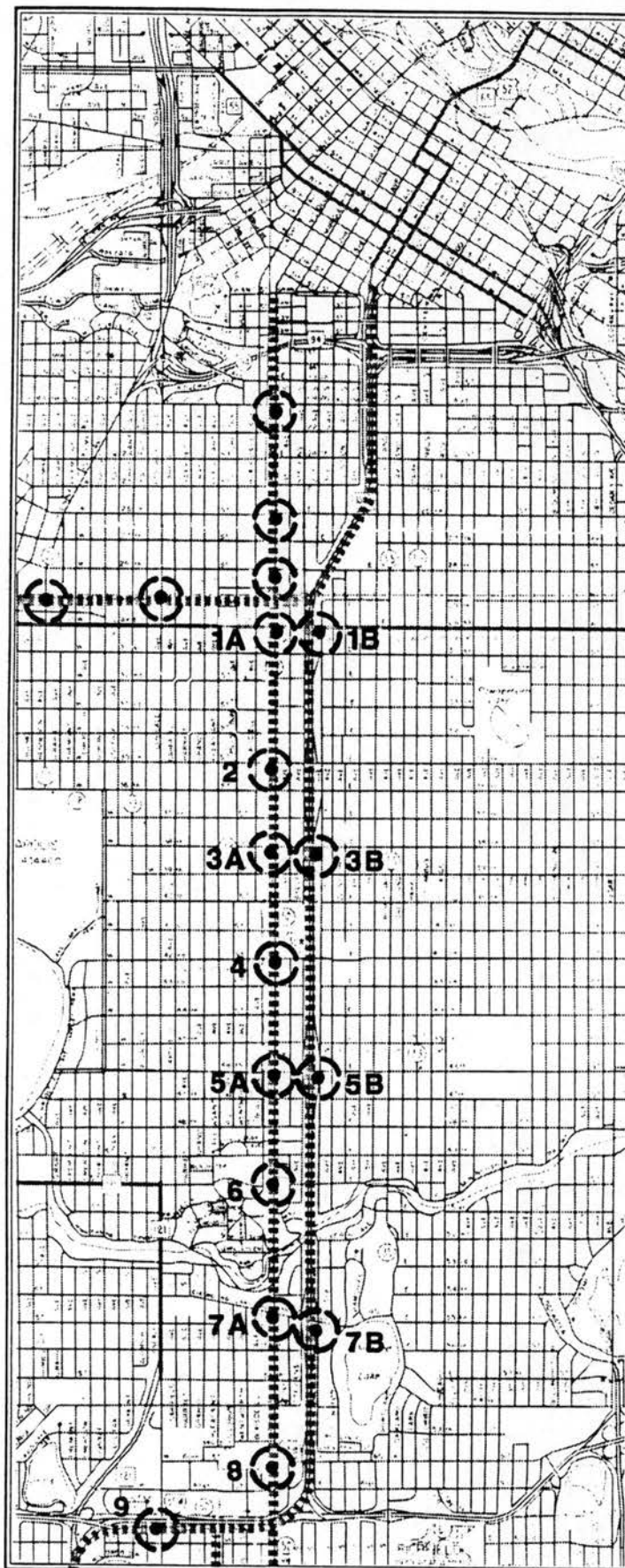
Comprehensive
LRT System Plan



Southwest Corridor
West Suburban Segment

Preliminary Site Locations

3-3



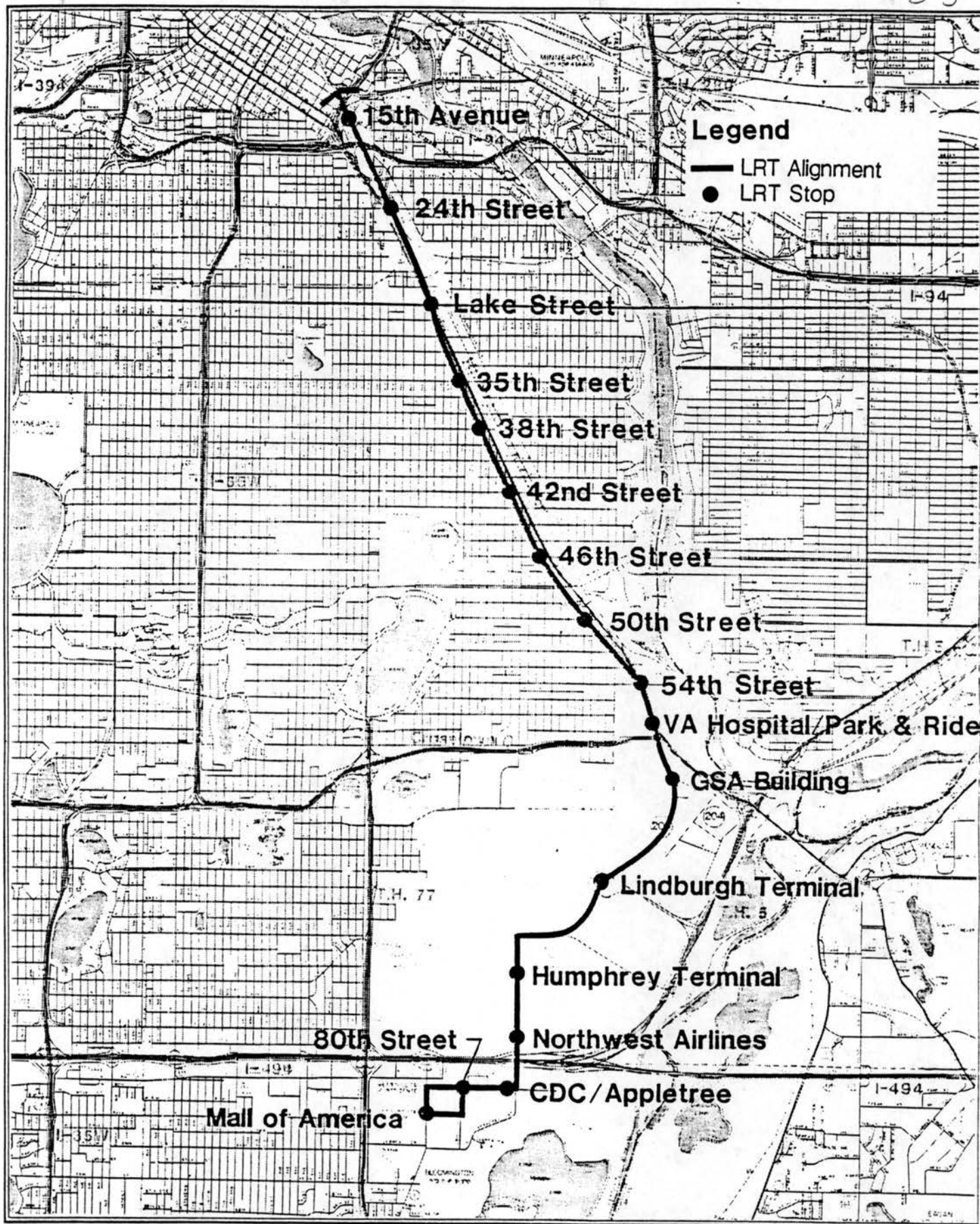
HCRRA
Houston County Regional Rail Authority

Comprehensive
LRT System Plan



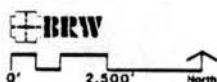
(I-35W) South
Corridor

Preliminary Station
Locations



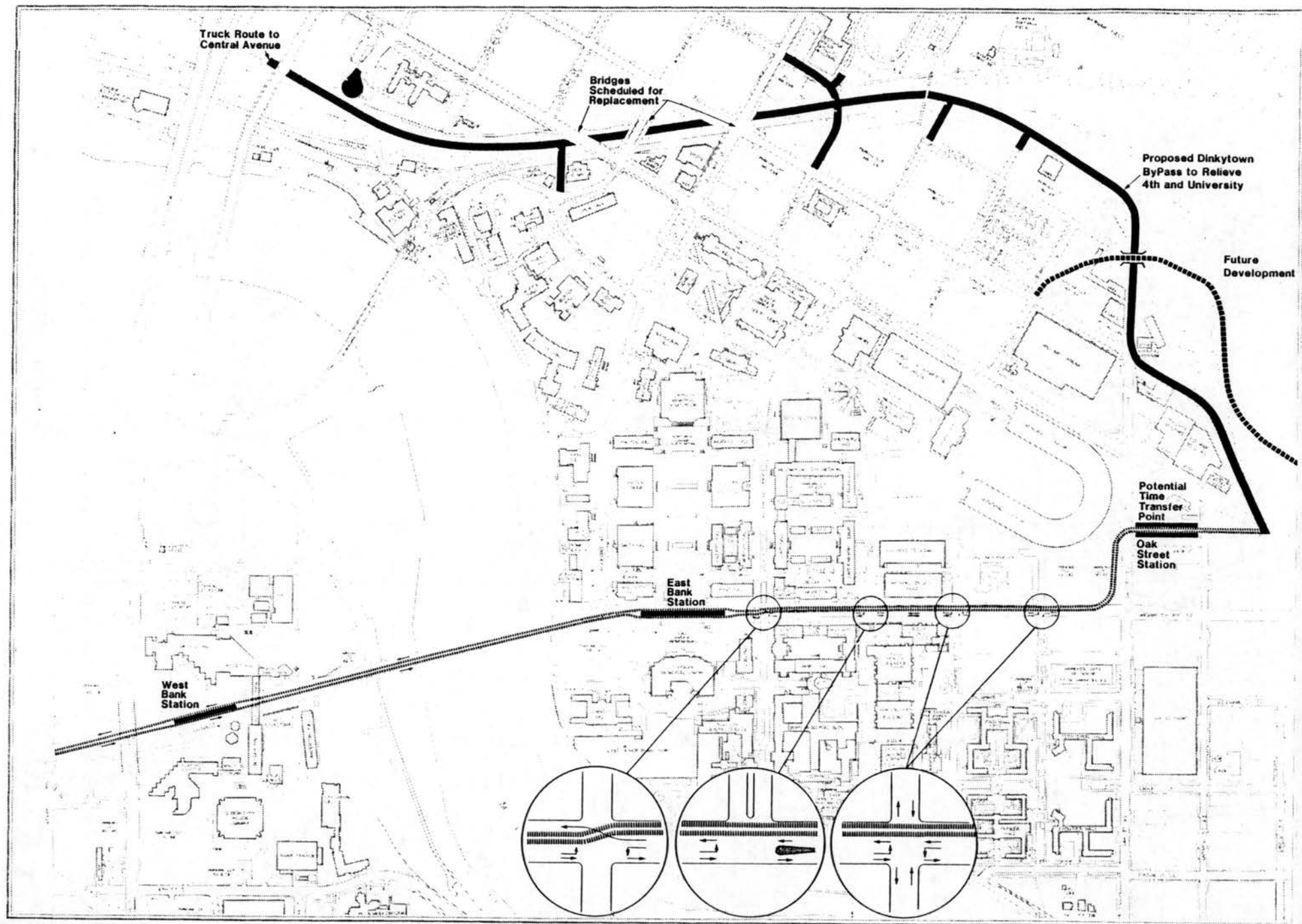
HCRRA
Hiawatha County Regional Railroad Authority

Comprehensive
LRT System Plan



Hiawatha Corridor

Corridor Advisory
Committee
Recommendation



BRW, Inc.
2/10/88

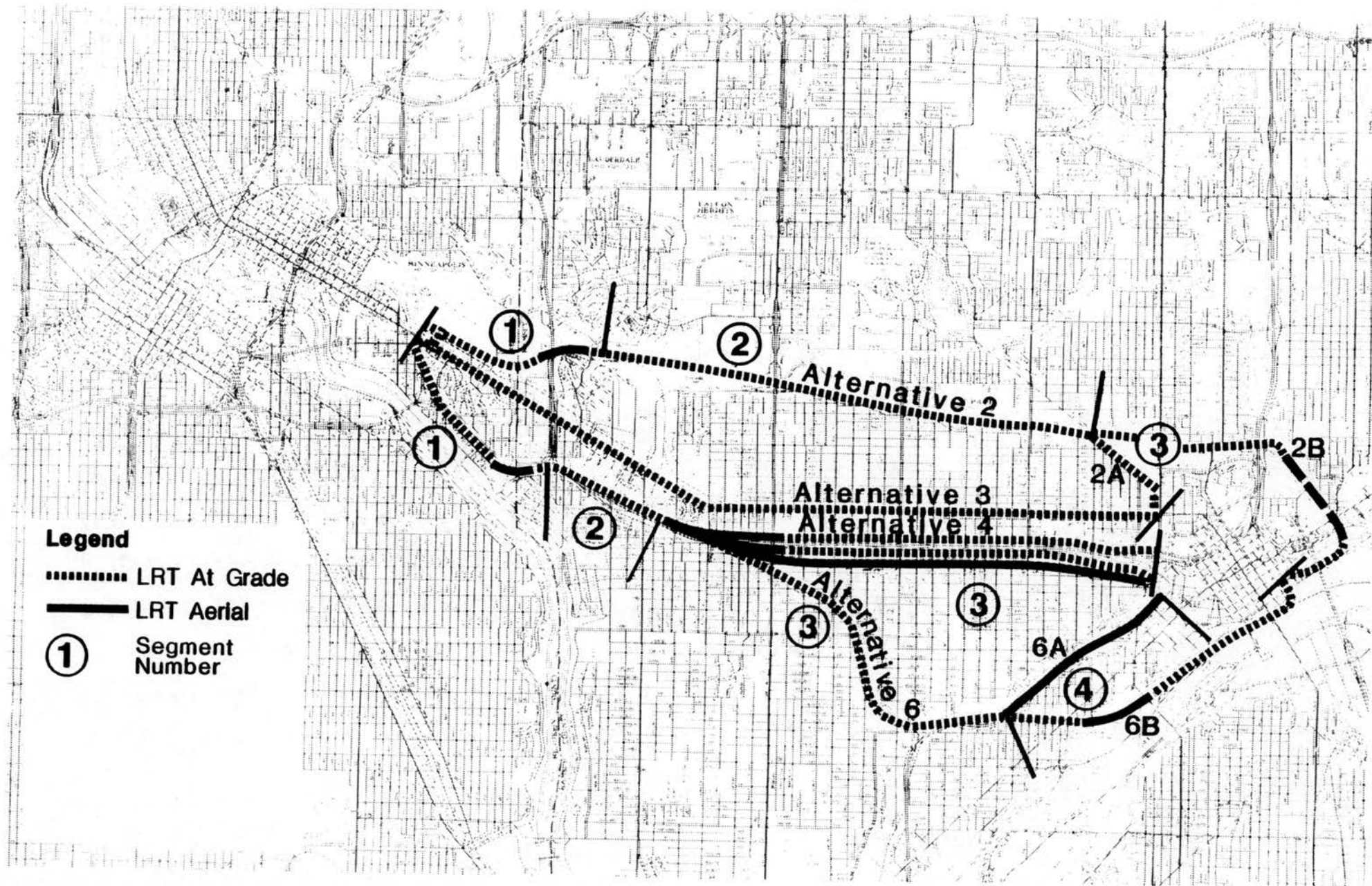
CONCEPTUAL COSTS OF ALTERNATIVE ALIGNMENTS

ALTERNATIVES	LENGTH (MILES)	CONSTRUCTION COST (MILLIONS)
ALIGNMENT 2A--SOUTHERN BN MAINLINE AND COMO	6.14	\$44
ALIGNMENT 2B--SOUTHERN BN MAINLINE TO EAST OF DOWNTOWN	8.16	\$89
ALIGNMENT 3--UNIVERSITY AVENUE	6.30	\$48
ALIGNMENT 4A--I-94 (IN FRONTAGE ROAD)	6.37	\$58
ALIGNMENT 4B--I-94 (HIGH SPEED LINE-AERIAL STRUCTURE)	6.37	\$112
ALIGNMENT 4A--SHORTLINE VIA I-35E	7.35	\$83
ALIGNMENT 6B--SHORTLINE VIA SHEPHARD ROAD	8.50	\$88

NOTE: ABOVE COSTS ARE FOR PURPOSE OF COMPARING ALTERNATIVE ALIGNMENTS ONLY. COSTS INCLUDE STREET RECONSTRUCTION, UTILITY RELOCATIONS, TRACK, CATENARY, POWER, BARRIERS AND AERIAL STRUCTURES. COSTS DO NOT INCLUDE RIGHT-OF-WAY ACQUISITION, SIGNAL PRE-EMPTION, STATIONS, VEHICLES, PARKING, YARDS AND SHOPS, OR SPECIAL ITEMS.

ALIGNMENT MAP ALONG WITH SPECIFIC ASSUMPTIONS AND ISSUES FOR EACH ALIGNMENT ARE ATTACHED.

Attachment 4-1



Legend

..... LRT At Grade

———— LRT Aerial

① Segment Number



Midway Corridor LRT Planning Analysis

RTB
REGIONAL TRANSIT BOARD



0 1000' 1/2 Mile

BRW

2-4

BRW, Inc.
2/10/88

ASSUMPTIONS FOR CONCEPTUAL COSTS FOR ALTERNATIVE ALIGNMENTS IN MIDWAY CORRIDOR

ALTERNATIVE 2A--SOUTHERN BN MAINLINE

THIS ALIGNMENT WAS DIVIDED INTO THREE SEGMENTS FOR COST ESTIMATE PURPOSES. FOLLOWING IS A DESCRIPTION OF THE ALIGNMENT ASSUMPTIONS FOR EACH SEGMENT AND SOME ISSUES THAT WILL NEED TO BE RESOLVED IN EACH SEGMENT.

SEGMENT 1

ASSUMPTION--THE ALIGNMENT STARTS AT UNIVERSITY AVENUE NEAR OAK STREET WHERE THE UNIVERSITY CONNECTOR WOULD TERMINATE IN THE HENNEPIN COUNTY PLAN. IT WOULD RUN TWO BLOCKS IN A CITY STREET (27TH AVENUE) TO A LITTLE USED BN BRANCH LINE WHERE THE PROPOSED UNIVERSITY OF MINNESOTA TRANSITWAY WOULD ALSO RUN. THE LINE WOULD PARALLEL THE U OF M TRANSITWAY TO APPROXIMATELY RAYMOND AVENUE NEAR TH 280, WHERE THE LIGHT RAIL LINE WOULD BRIDGE OVER A BN YARD LEAD.

ISSUES:

1. THIS SEGMENT IS IN A HEAVY INDUSTRIAL AREA WITH MANY AT-GRADE CROSSINGS FOR LARGE TRUCKS, WHICH IS NOT COMPATIBLE WITH HIGH SPEED LRT OPERATION.
2. ASSUMES THAT THE SERVICE TRACKS IN THE AREA ARE NOT IN SERVICE.

SEGMENT 2

ASSUMPTION: THE ALIGNMENT IN THIS SEGMENT WOULD RUN ON THE SOUTH SIDE OF TWO MAIN TRACKS IN A STRIP WHERE TRACKS HAVE BEEN REMOVED.

ISSUES:

1. THE LRT TRACKS AND THE HIGH VOLUME BN MAINLINE TRACKS WOULD NEED TO BE SEPARATED BY A CRASH BARRIER.
2. OVERHEAD BRIDGES AT SNELLING, LEXINGTON, DALE, COMO, AND WESTERN WILL LIMIT SEPARATION BETWEEN LRT AND FREIGHT TRACKS UNLESS THEY ARE REPLACED.
3. PRIVATE RIGHT-OF-WAY WILL BE REQUIRED AT COMO AND VIRGINIA

4. THE BN ROUTE WAS LOCATED WITHOUT ACCESS TO BN RAILROAD MAPS OR DISCUSSION WITH BN STAFF REGARDING DETAILED LOCATION ALTERNATIVES. BN HAS SAID RIGHT-OF-WAY MAY NOT BE AVAILABLE IN ALL LOCATIONS.

SEGMENT 3

ASSUMPTIONS--DOUBLE TRACK IN COMO AND RICE TO THE INTERSECTION OF RICE AND UNIVERSITY.

ISSUES:

1. ENTRY ALIGNMENT TO ST. PAUL CBD NOT RESOLVED.
2. TRACK LOCATION ON COMO AVENUE NOT RESOLVED.

BRW, Inc.
2/10/88

ALTERNATIVE 2B

SEGMENT 1--SAME AS ALTERNATIVE 2A

SEGMENT 2--SAME AS ALTERNATIVE 2A

SEGMENT 3

ASSUMPTIONS--THE ALIGNMENT IN THIS SEGMENT WOULD CONTINUE ON THE BN ALIGNMENT AROUND ST. PAUL INTO THE UNION STATION DEPOT

ISSUES:

1. THE LRT TRACKS AND THE HIGH VOLUME BN MAINLINE WOULD NEED TO BE SEPARATED BY A CRASH BARRIER.
2. SIGNIFICANT AMOUNT OF RAIL ACTIVITY IN THIS AREA. IT IS ASSUMED THAT LRT TRACKS WILL HAVE TO BE AERIAL IN SOME SECTIONS TO CROSS ACTIVE MAINLINE OR SERVICE TRACKS.
3. THE BN ROUTE IS LOCATED WITHOUT ACCESS TO BN RAILROAD MAPS OR DISCUSSION WITH BN STAFF REGARDING LOCATION. BN HAS SAID RIGHT-OF-WAY MAY NOT BE AVAILABLE IN ALL LOCATIONS.
4. SERVICE TO DOWNTOWN ST. PAUL IS NOT RESOLVED. TERMINUS IS AT EDGE OF DOWNTOWN AND ENTRY INTO DOWNTOWN IS COMPLICATED BECAUSE OF GRADES.

BRW, INC.
2/10/88

ALTERNATIVE 3--UNIVERSITY AVENUE

ASSUMPTIONS--LRT WOULD RUN IN THE CENTER MEDIAN OF UNIVERSITY AVENUE FROM APPROXIMATELY OAK STREET TO RICE STREET. PAVED TRACK WOULD BE USED IN ALL LOCATIONS.

ISSUES:

1. DOES NOT INCLUDE GRADE SEPARATIONS AT HIGH VOLUME INTERSECTIONS OF UNIVERSITY AND SNELLING.
2. ENTRY ALIGNMENT INTO DOWNTOWN ST. PAUL NOT RESOLVED.

BRW, Inc.
2/10/88

ALTERNATIVE 4A--I-94

THE I-94 ALIGNMENT IS ALSO DIVIDED INTO THREE SEGMENTS

SEGMENT 1

ASSUMPTIONS: LRT WOULD RUN IN THE TO BE ABANDONED SOO LINE TRACKAGE FROM WASHINGTON AVENUE TO VICINITY OF I-94/TH 280 JUNCTION. ALIGNMENT WOULD REQUIRE CONSTRUCTION OF AN ADDITIONAL SINGLE TRACK BRIDGE OVER I-94 IN THE VICINITY OF 27TH STREET AND A BRIDGE OVER THE SOO MAINLINE TRACK TO THE WEST.

ISSUES:

1. THE CITY OF MINNEAPOLIS IS LOOKING AT A PORTION OF THE SOO LINE RIGHT-OF-WAY TO BE ABANDONED IN HENNEPIN COUNTY FOR THE MOTLEY BY-PASS (CONNECTS DARTMOUTH INTERCHANGE WITH UNIVERSITY AVENUE).
2. SOIL BORINGS NEAR THE SOO LINE TRACKAGE IN THE AREA OF WASHINGTON AVENUE HAVE REVEALED SOME SIGNIFICANT POLLUTION PROBLEMS.
3. LINE WOULD HAVE THREE AT-GRADE STREET CROSSINGS WHICH WOULD LIMIT SPEED LIMITS THROUGH THIS AREA.

SEGMENT 2

ASSUMPTIONS--LRT LINE WOULD FOLLOW SOO MAIN TRACK FROM VICINITY OF I-94/TH 280 JUNCTION TO FAIRVIEW AVENUE. LRT TRACKS WOULD BE LOCATED ON THE SOUTH SIDE OF THE SOO TRACK AND UTILIZE TWO OF THE THREE EXISTING BRIDGES OVER I-94 IN THE VICINITY OF PELHAM.

ISSUES:

1. CRASH BARRIER NEEDED TO SEPARATE LRT AND FREIGHT TRACKS.
2. AMTRAK JUNCTION IN THIS SEGMENT, BUT LRT IS ON SOUTH SIDE AND SHOULD NOT CONFLICT.
3. NSP STEAM LINE IN THIS SEGMENT NEEDS TO BE REMOVED TO ACCOMMODATE LRT. NSP IS CURRENTLY IN LITIGATION OVER THE USE OF THE STEAM LINE AND INDICATED THEY STILL FEEL IT WILL BE USED IN THE FUTURE.
4. TRACK SEPARATION LIMITED BY RAILROAD BRIDGE AT PELHAM AND OVERHEAD BRIDGES AT VANDALIA AND CLEVELAND.

SEGMENT 3

ASSUMPTIONS--LRT WOULD BE LOCATED ON SEPARATE TRACKS ON THE ONE-WAY FRONTAGE ROADS OF I-94 FROM FAIRVIEW TO JOHN IRELAND BOULEVARD. A BRIDGE OVER THE SOO MAIN TRACK AND OVER I-94 FOR THE EASTBOUND LINE WOULD BE REQUIRED IN THE VICINITY OF FAIRVIEW.

ISSUES:

1. THERE WOULD BE AT-GRADE CROSSINGS OF FOUR MAJOR NORTH-SOUTH ARTERIAL STREETS HAVING AN INTERCHANGE WITH I-94 (SNELLING, LEXINGTON, DALE AND MARION). THERE IS ALSO AN OFF RAMP TO HAMLINE FROM WESTBOUND I-94.
2. FOUR SIGNALIZED MAJOR FRONTAGE ROAD CROSSINGS WILL BE REQUIRED AT EACH ARTERIAL CROSSING TO MAINTAIN TRAFFIC FLOW ON THE FREEWAY RAMPS.
3. TYPICAL TRACK LOCATION IS BETWEEN THE FRONTAGE ROAD AND FREEWAY EXCEPT IN THE VICINITY OF THE MAJOR ARTERIALS THAT HAVE AN INTERCHANGE WITH I-94.
4. THERE WOULD ALSO BE AT-GRADE CROSSINGS OF FOUR OTHER ARTERIAL CROSS STREETS (WESTERN, VICTORIA, HAMLINE AND PASCAL), AND FOUR PEDESTRIAN BRIDGES AT GROTTA, CHATSWORTH, GRIGGS AND PIERCE.
5. THE LACK OF CROSSOVERS BETWEEN LRT TRACKS WILL IMPAIR LRT OPERATIONS DURING BREAKDOWNS.
6. SPECIFIC ENTRY POINT INTO DOWNTOWN IS NOT RESOLVED.
7. PARKING AND TREES NEAR INTERSECTIONS OF MAJOR CROSS STREETS WILL BE LOST, AND ADDITIONAL PRIVATE PROPERTY MAY BE REQUIRED AT STATIONS.

BRW, INC.
2/10/88

ALTERNATIVE 4B--I-94 HIGH SPEED ALTERNATIVE

SEGMENT 1--SAME AS ALTERNATIVE 4

SEGMENT 2--SAME AS ALTERNATIVE 4

SEGMENT 3--DOUBLE TRACK AERIAL STRUCTURE ALONG THE NORTHERLY FRONTAGE ROAD OF I-94 TO ALLOW OPERATION OF TRAINS AT MAXIMUM SPEED IF STATION SPACING PERMITS. ALL STATIONS WOULD BE AERIAL.

ISSUES:

1. WOULD PATRONAGE JUSTIFY COSTS TO ATTAIN HIGHER SPEEDS WITH LONGER STATION SPACING.
2. AERIAL STRUCTURE MAY BE PERCEIVED AS VISUAL BARRIER.

BRW, Inc.
2/10/88

ALTERNATIVE 6A--SHORTLINE ROUTE

THE SHORTLINE ROUTE IS DIVIDED INTO FOUR SEGMENTS

SEGMENT 1--SAME AS I-94 ROUTE

SEGMENT 2--SAME AS I-94 ROUTE

SEGMENT 3

ASSUMPTION: LRT IN SOO RIGHT-OF-WAY ON SEPARATE TRACK WITH ONE OPERATING MAIN TRACK FOR FREIGHT AND AMTRAK.

ISSUES:

1. TRACK SEPARATION FOR LRT OPERATION LIMITED BY:
 - A. 3 TRACK RR BRIDGES AT PRIOR, FAIRVIEW AND SNELLING
 - B. 2 TRACK RR BRIDGE AT VICTORIA
 - C. OVERHEAD BRIDGES AT SELBY, HAMLINE, SUMMIT, GRAND, ST. CLAIR, AND LEXINGTON
2. RR BRIDGES AT PRIOR AND SNELLING IN BAD CONDITION.
3. STEAM LINE UNDER SECOND TRACKBED. ON SURFACE OVER ALL RR BRIDGES (STEAM LINE RELOCATION NOT INCLUDED IN COST ESTIMATE). NSP EXPECTS TO USE STEAM LINE IN FUTURE INSTALLATION. COST APPROXIMATELY \$20 MILLION.

SEGMENT 4

ASSUMPTION: LRT ON AERIAL STRUCTURE IN I-35E RIGHT-OF-WAY FROM SOO LINE RR TO KELLOGG BOULEVARD.

ISSUES:

1. AERIAL STRUCTURE MAY BE PERCEIVED AS VISUAL BARRIER
2. SPECIFIC ENTRY INTO ST. PAUL CBD NOT RESOLVED.
3. LRT IN I-35E ALIGNMENT (ESPECIALLY ON AN AERIAL STRUCTURE) COULD RESULT IN LEGAL ACTION.

BRW, Inc.
2/10/88

ALTERNATIVE 6B--SHORTLINE ROUTE

SEGMENT 1 -- SAME AS I-94 ROUTE

SEGMENT 2 -- SAME AS I-94 ROUTE

SEGMENT 3 -- SAME AS SHORTLINE 6A

SEGMENT 4

ASSUMPTION: LRT CONTINUES ON SOO LINE RIGHT-OF-WAY TO FORD JUNCTION WHERE IT CROSSES OVER SOO TRACK FROM SOUTH ON AERIAL BRIDGE AND DOWN INTO PROPOSED SHEPARD ROAD RIGHT-OF-WAY WHICH IT FOLLOWS TO UNION STATION.

ISSUES:

1. AERIAL STRUCTURE MAY BE PERCEIVED AS VISUAL BARRIER
2. SPECIFIC ALIGNMENT IN ST. PAUL CBD NOT RESOLVED
3. ADDITIONAL ANALYSIS REQUIRED TO DETERMINE TECHNICAL FEASIBILITY OF ALIGNMENT

RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY

REQUEST FOR BOARD ACTION

4

<u>Public Works</u> Originating Department		Board Action Requested REVIEW PROCESS - PROPOSED FOR MIDWAY CORRIDOR LIGHT RAIL TRANSIT STUDY
<u>K. DeSpiegelaere</u> Authorized Signature	<u>2/18/88</u> Date	

Request Justification

See attached memo of February 17, 1988 - K. DeSpiegelaere with attachments, draft letter, mailing list for study.

Budgeting and Accounting _____ County Attorney _____ Risk Manager _____ Data Processing _____ _____ Previous Action taken on Request _____	Date / Time _____ Received By _____
---	--

Comments / Recommendation

Documentation certified complete for:

<u>Committee / Meeting Date</u> _____	<u>Signature</u> _____	<u>Date</u> _____
<u>Committee / Meeting Date</u> <u>February 23, 1988</u> <u>Board Date</u>	<u>Signature</u> <i>F L Glendinning</i> <u>Signature</u>	<u>Date</u> <u>2/18/88</u> <u>Date</u>

14

MEMORANDUM

To: Ramsey County Regional Railroad Authority Commissioners
Executive Director Terry Schutten

From: Kathryn DeSpiegelaere *KD*

Subject: Review Process
Proposed for Midway Corridor Light Rail Transit Study

Date: February 17, 1988

A draft report discussing alignments for LRT in the Midway Corridor is expected to be available on February 25. A review process suggested by Commissioner Finley is:

1. The report would be available to the Midway Corridor Task Force at its February 25 meeting. One week later, at its March 3 meeting, the Task Force would be asked to recommend a preferred alignment. Additional meetings could be scheduled as required to reach a conclusion. With the recommendation of a preferred alignment, the work of the Task Force would be concluded.
2. The report would be available to the Citizens Advisory Committee at its March 1 meeting. The Committee would receive the recommendation of the Task Force and could also recommend a preferred alignment as early as March 8. Additional meetings could be scheduled as required to reach a conclusion.

Although the work of the Committee is ongoing, because of the weekly meetings held during January, February and March, a break of one month in meetings of the group is recommended once a recommendation on preferred alignment in the Midway Corridor has been made.

3. Members of the Ramsey County Regional Railroad Authority (RCRRA) would receive copies of the report on February 26. A joint meeting of the RCRRA and Regional Transit Board is scheduled for February 29 at 4 p.m. to discuss the report. No action would be requested at that meeting.
4. A mailing list and draft letter (attached) have been prepared informing interested parties of the study and indicating that a copy of the study will be sent to them with comments from the Task Force and Advisory Committee when those groups have completed their recommendations.
5. The Regional Transit Board, because it is a partner in the study, is absent from the mailing list. The Ramsey County Regional Railroad Authority would receive a recommendation on preferred alignment in the Midway Corridor from the Regional Transit Board.
6. After allowing a sufficient amount of time for review and evaluation of all comments received, the Ramsey County Regional Railroad Authority could select a preferred alignment for LRT in the Midway Corridor.

To be revised

Recommendation:

For discussion and approval.

KD:m
atts.

KD RRA REVIEW

1

13
February 25, 1988

Dear :

Ramsey County Regional Railroad Authority and the Regional Transit Board have completed a study of alignments for light rail transit in the Midway Corridor of St. Paul. The study has been referred for recommendations to the Citizens' Advisory Committee and Midway Corridor Task Force of the Ramsey County Regional Railroad Authority.

A copy of the study and recommendations from the two citizen groups will be forwarded to you when they are received.

Very truly yours,

John T. Finley, Chairman
Regional Railroad Authority

JTF/clm

To be
revised

12

MAILING LIST
MIDWAY CORRIDOR ALIGNMENT STUDY

Mayor George Latimer
City of St. Paul
347 City Hall
St. Paul, Minnesota 55102

James Scheibel, President
St. Paul City Council
716 City Hall
St. Paul, Minnesota 55102

Representative Daniel Knuth
Chair, Ramsey County
House Delegation
345 State Office Building
St. Paul, Minnesota 55155

Senator John J. Marty
Chair, Ramsey County
Senate Delegation
235 State Capitol
St. Paul, Minnesota 55155

Mr. Frank Snowden, Chair
Metropolitan Transit Commission
560 Sixth Avenue North
Minneapolis, Minnesota 55411

Mr. Steve Keefe, Chair
Metropolitan Council
300 Metro Square Building
Seventh & Robert Streets
St. Paul, Minnesota 55101

Mr. Kermit McRae
District 9 Engineer
Minnesota Dept. of Transportation
3485 Hadley Avenue North
North St. Paul, Minnesota 55109

Commissioner Jeff Spartz
Henn. Co. Regional Railroad Auth.
A-2307 Hennepin Co. Govt. Center
300 South Sixth Street
Minneapolis, Minnesota 55487

Gary Grefenberg, Exec. Secretary
Capitol Area Architectural &
Planning Board
B-46 State Capitol
St. Paul, Minnesota 55155

Kenneth Keller, President
University of Minnesota
202 Morrill Hall
100 Church Street Southeast
Minneapolis, Minnesota 55455

RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY

REQUEST FOR BOARD ACTION

5

Chairman Finley		Board Action Requested
Originating Department		
John T. Finley	2/18/88	
Authorized Signature	Date	
		APPOINTMENT TO MIDWAY CORRIDOR TASK FORCE.

Request Justification

Merriam Park Community Council has submitted the name of Kim Reckinger to be their representative on this Task Force for the Midway Corridor. Ms. Haberman of the Council called on February 12th with this information.

Mr. Reckinger's mailing address is 1732 Iglehart Avenue, St. Paul, Minnesota 55104. Telephone Number is 645-1326.

Budgeting and Accounting _____

County Attorney _____

Risk Manager _____

Data Processing _____

Previous Action taken on Request

Date / Time
Received By

PLEASE NOTE: LETTER HAS JUST BEEN RECEIVED 2/18 - see alternates also appointed:

Scott Heiderich
Michael Laughlin

Comments / Recommendation

Documentation certified complete for:

Committee / Meeting Date

Signature

Date

Committee / Meeting Date

Signature

Date

February 23, 1988

JL Henderson

2/18/88

Board Date

Signature

Date



**MERRIAM PARK
COMMUNITY COUNCIL, INC.**

2000 St. Anthony Ave. St. Paul, Minnesota 55104 645-6887

February 15, 1988

Commissioner John T. Finley
Room 316 Ramsey County Court House
St. Paul, MN. 55101

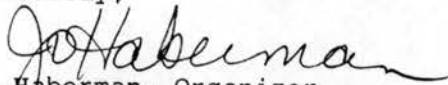
Dear Commissioner Finley:

The Merriam Park Community Council met on January 27, 1988, and appointed Mr. Kim Reckinger to the Midway Corridor Task Force on Light Rail Transit.

Two Alternates were also chosen: Mr. Scott Heiderich and Mr. Michael Laughlin.

Mr. Reckinger will be attending the February 25th meeting at Midway Hospital.

Sincerely,


Jo Haberman, Organizer
Merriam Park Community Council

JH/em

RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY

REQUEST FOR BOARD ACTION

6

Chairman Finley
Originating Department

John T. Finley 2/18/88
Authorized Signature Date

Board Action Requested

BURLINGTON NORTHERN RAILROAD
ABANDONMENT - DISCUSSION

Request Justification

See attached memo from K. Despiegelaere dated 2/17/88
with attachment 1 -Map showing abandoned line.
2 -Petition for Hearing, Minn. Transportation Regulation Board
3 -Mayor Latimer letter of May 18, 1987
4 -Kiki Sonnen Letter June 2, 1987 w/resolution
5 - City of Maplewood Resolution 7/29/87
6 -Presentation of Info by P. O'Malley to 8/24/87 Board Mtg.
with att. Status Report 8/14/87 Pat O'Malley
BN RailroadLetter 8/31/87

Budgeting and Accounting
County Attorney
Risk Manager
Data Processing
Previous Action taken on Request

Date / Time
Received By

Comments / Recommendation

PLEASE NOTE: COMMISSIONERS McCARTY AND SALVERDA HAVE REQUESTED THAT
ACQUISITION OF THIS ABANDONED LINE BE DISCUSSED.

Documentation certified complete for:

Committee / Meeting Date

Signature

Date

Committee / Meeting Date
February 23, 1988

J. L. Henderson
Signature

Date

2/18/88

Board Date

Date

MEMORANDUM

To: Ramsey County Regional Railroad Authority Commissioners
Executive Director Terry Schutten

From: Kathryn DeSpiegelaere *KD*

Subject: Burlington Northern Railroad Abandonment - Summary of Events

Date: February 17, 1988

INTRODUCTION

On April 22, 1987, the Minnesota Transportation Regulation Board permitted Burlington Northern Railroad to abandon 6.52 miles of track between Kellogg Boulevard in St. Paul and Beam Avenue in Maplewood. A location map and copy of the order are attached (Attachment 1 and 2).

The right of way in this railroad corridor varies from 70 to over 200 feet in width and Burlington Northern Railroad is interested in selling it.

A summary of Ramsey County involvement in the railroad abandonment topic follows.

STAFF GROUP

The Minnesota Department of Transportation, District 9, convened staff from cities, state and regional agencies and Ramsey County Parks and Public Works Departments in July, 1986 to discuss the potential Burlington Northern abandonment. The focus was opportunities for parks or transportation uses and methods of acquisition. No consensus was reached and the meetings ceased when a new group began meeting in November, 1986.

AD HOC COMMITTEE

At the request of Metropolitan Council members Charles Wiger and Mary Hauser, Commissioner Duane McCarty convened a group of elected and appointed officials representing Ramsey County, cities in the Burlington Northern corridor (then thought to extend to White Bear Lake) and the Metropolitan Council in November, 1986. Meetings of this group focused on options for acquisition with discussion deferred on potential use of the corridor. Meetings were held with the Commissioner of Transportation, Director of Trails and Waterways Unit of the Minnesota Department of Natural Resources and with representatives of Burlington Northern.

TOUR

In late April and early May, 1987, Burlington Northern arranged for tours by officials and staff members of the right of way. A letter received from Mayor George Latimer (Attachment 3) summarizes concerns and interests.

2

RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY

Ramsey County formed a Regional Railroad Authority in April, 1987. A regional railroad authority may acquire abandoned railroad right of way.

A letter from St. Paul Councilmember Kiki Sonnen dated June 2, 1987 to Mayor George Latimer was considered at the June 15, 1987 Regional Railroad Authority meeting (Attachment 4). The letter and resolution accompanying it requested that the Regional Railroad Authority review and consider acquiring the Burlington Northern right of way.

A resolution from the City of Maplewood urging the Regional Railroad Authority to appoint a corridor advisory committee to study and develop a proposal to acquire the abandoned Burlington Northern railroad corridor was considered at the August 24, 1987 Regional Railroad Authority meeting (Attachment 5).

Additional information on the Burlington Northern corridor was submitted to the Regional Railroad Authority by Patrick O'Malley (Attachment 6).

RECENT BURLINGTON NORTHERN MEETING

Patrick O'Malley and I met with representatives of the Burlington Northern on January 25, 1988. The information provided was that the abandoned railroad right of way was available for purchase. None of it had been sold at that time. Although there is a need to serve a Northern States Power facility north of Beam Avenue, Burlington Northern indicated a willingness to discuss availability of the line from Kellogg Boulevard to Hugo in Washington County, beyond the portion that has been abandoned.

Recommendation:

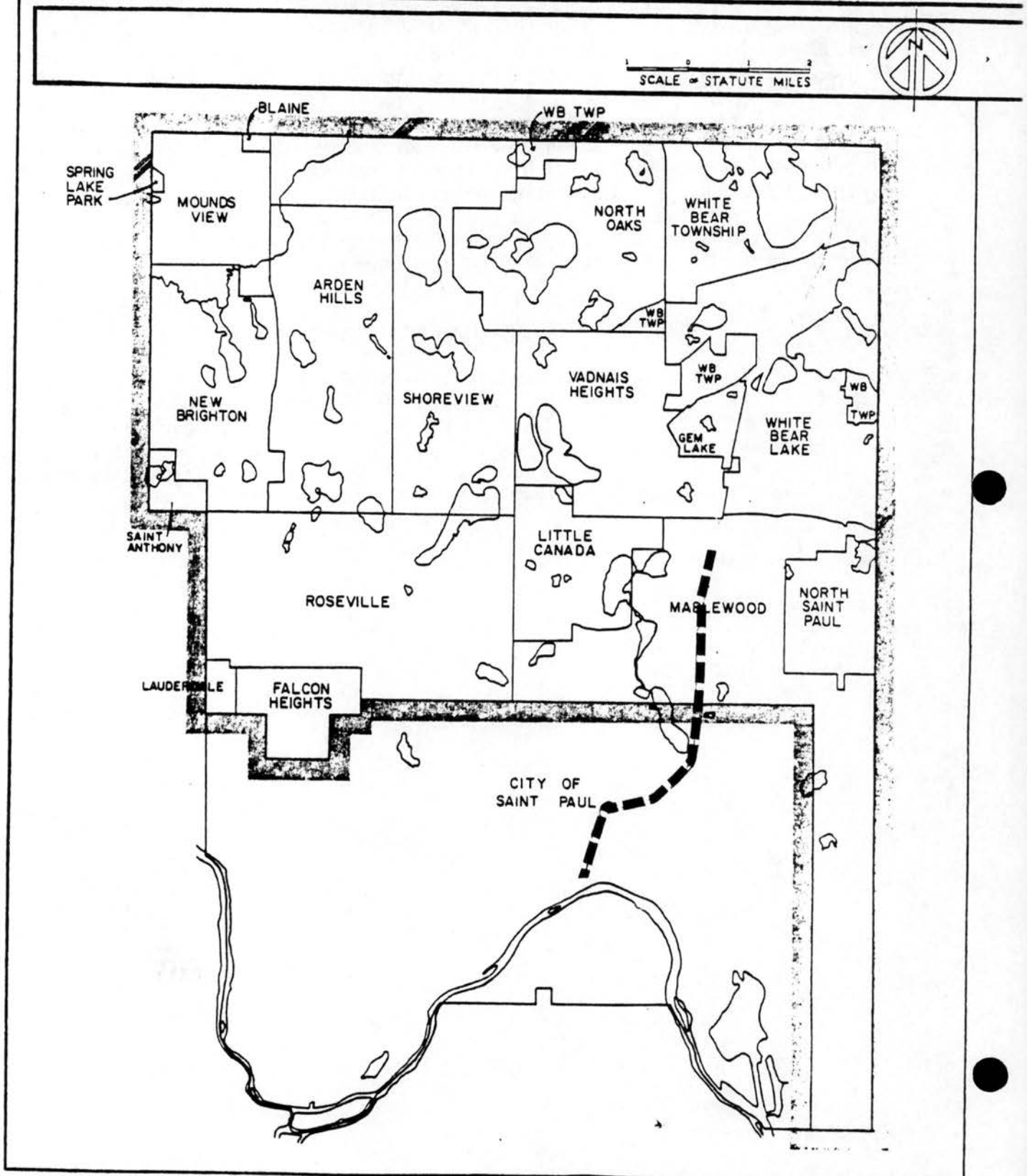
For your information.

KD:m
atts.



FIGURE 1-A

PROPOSED ABANDONMENT
BURLINGTON NORTHERN RAILROAD



BEFORE THE MINNESOTA TRANSPORTATION REGULATION BOARD

Roger A. Laufenburger
Eldon E. Keehr
Lorraine E. Mayasich

Chairman
Board Member
Board Member

In the Matter of the Petition of
Burlington Northern Railroad,
176 E. 5th St., St. Paul, MN
55101, for Authority to Retire
and Remove a Segment of Industrial
Track in Ramsey County, MN between
Mile Post 0.00 near Division St.
and Mile Post 6.52 near M & D
Junction near White Bear Lake, MN.

FILE NO. D-5506

ORDER NO. R-4131

RAMSEY COUNTY
PUBLIC WORKS

MAY 04 1987

ORDER AFTER NOTICE OF APPLICATION AND OPPORTUNITY FOR HEARING

IT APPEARING that by Application filed with the Transportation Regulation Board (Board) on March 9, 1987, the Burlington Northern Railroad (Applicant) requests authority to retire and remove a segment of Industrial Track in Ramsey County, MN between Mile Post 0.00 near Division St. and Mile Post 6.52 near M & D Junction near White Bear Lake, MN, as shown on Exhibit A "Marked Profile" attached to the Application; and

IT FURTHER APPEARING that Applicant states the only shippers, patrons, or members of the public who might have any interest in the retention of the tracks or facilities, or who have used the same to any substantial degree within the past several years are Strohs Brewery, 3M Co. and Gladstone Lumber Mart, Inc.; and

IT FURTHER APPEARING that attached to the Application are signed statements from J. W. Walia, Plant Mgr., The Strohs Brewery Co. (Exhibit B), David Dahl, Planning Coordinator, 3M (Exhibit C), and Don M. Copeland, president, Gladstone Lumber Mart (Exhibit F), and the Honorable George Latimer, Mayor, City of St. Paul (Exhibit H), consenting to removal of the subject track; and

IT FURTHER APPEARING that on March 13, 1987, the Transportation Regulation Board issued a Notice of Opportunity for Hearing to all known potential parties of interest pursuant to Minn. Stats. 219.741, and also published said notice in its Weekly Calendar of Notices which stated that any person may file a written objection to the proposed action by means of a letter addressed to the Board not later than April 13, 1987; and

IT FURTHER APPEARING that the protest date has expired and no persons filed any written objections to the Application.

KD

IT IS THEREFORE ORDERED:

ORDER

That the Application of the Burlington Northern Railroad, 176 E. 5th St., St. Paul, MN 55101 for authority to retire and remove a segment of Industrial Track in Ramsey County, MN between Mile Post 0.00 near Division St. and Mile Post 6.52 near M & D Junction near White Bear Lake, MN, is hereby granted effective on the service date of this order; and

IT IS FURTHER ORDERED that Applicant shall, within 180 days from the service date of this order, comply with the following:

1. Remove the subject track.
2. Remove crossbucks or signals from the crossing, if applicable.
3. Restore the crossing surface to a condition satisfactory to the appropriate road authority, if applicable.

BY ORDER OF THE BOARD

Roger A. Laufenburger
Chairman

SERVICE DATE:

APR 22 1987

(S E A L)

RAL:TSP:vm



GEORGE LATIMER
MAYOR

CITY OF SAINT PAUL
OFFICE OF THE MAYOR

347 CITY HALL
SAINT PAUL, MINNESOTA 55102
(612) 298-4323

May 18, 1987

Mr. John T. Finley, Chair,
Ramsey County Regional Rail Authority
Courthouse
Saint Paul, Minnesota

RAMSEY COUNTY
PUBLIC WORKS
MAY 27 1987

Dear Mr. Finley:

As a follow-up to our May 4 trip down the abandoned BN rail line I want to give you some of my impressions and let you know of various City concerns and interests.

Concerns:

Three concerns have fueled the City's immediate interest in the abandonment. First has been our sewer separation project. As you know we have a major sewer easement in the BN property and are building a new sewer. Abandonment will mean considerable savings of time and dollars for the separation program. This summer the City will be building a new sewer in the corridor from Swede Hollow Park to Earl Street.

My second concern is for our neighborhoods adjacent to the right of way. Saint Paul contains the portion of the corridor most closely abutted by residential development. Residents along the rail line north of Maryland Avenue are very concerned about potential re-use of the line and about its maintenance and security now that rail service is abandoned. Whatever action the City and/or County take regarding this corridor must proceed with caution and concern to involve these residents and allay fears about their homes and property.

My third concern is for upkeep of the property. I hope that in any communication the Rail Authority, County, and City have with BN, we clearly communicate that they have a responsibility to maintain their property. We need to make it clear that the Railroad has only abandoned service on the line, NOT their responsibilities as property owners. The City will continuously monitor the situation along the corridor to make sure BN fulfills its obligations as a considerate law-abiding property owner.

Interests:

Potential re-uses of the corridor are many. Financial resources to implement any of them are few. The City, through Councilmembers Sonnen and Nicosia, has participated in the "Ad Hoc" Committee chaired by Commissioner Duane McCarty. We have addressed at those meetings the various use interests the City might have with the rail line. Let me outline those for you.

1. Sewers: As I have mentioned above, the City owns a sewer easement in the corridor from Minnehaha Avenue to Earl Street. Any future uses must take into account the presence of a major sewer interceptor in the corridor.

KD 5/27/87

Mr. Finley
Page Two
May 18, 1987

2. ~~Transit~~ The BN alignment has been evaluated in several transit studies, most recently in the Metro Council's Long Range Transit Corridor Study completed last fall. While this area is second only to University Avenue in East Metro priorities, it is about seventh in the region. Any regional interest in using the rail property for transit seems at least ten years away. In addition the City is not in the business of transit provision and does not have funds available, in any case, for purchasing the corridor for transit.
3. Park Trails: The BN rail line provides a potential trail connection from Downtown through Swede Hollow Park to Phalen Lake and the State trail along the abandoned Soo Line to Washington County. The City's Parks and Recreation Division feel this corridor could be an excellent way to link the City's trail system together.

However, this is a new opportunity and not budgeted in our Program for Capital Improvements. City dollars are not available for purchase. If the corridor were acquired by another public body, reimbursement for trail use of a portion of the corridor might be possible through the Metro Open Space Program. Again, that is a long term possibility, involving changing metro plans, not a short term acquisition option.

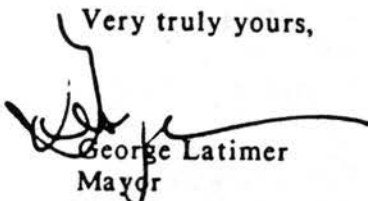
4. Industrial land access: In the portion of the corridor between Stroh's and Johnson Parkway, are areas of undeveloped industrial land -- some owned by BN. To be developed, these properties need non-residential street access. The City's Comprehensive Plan identifies the potential for a street in this area. Portions of the BN right of way could possibly be used. This is a small interest and would not justify acquisition by the City of the entire length of the rail line.

As in the case of the Trail, there is no funding identified for such a street, nor has its feasibility been evaluated.

In summary we have several immediate concerns and several long term interests in the corridor or parts of it, but no funding that can be put forward to acquire. I want to also point out that 58% of the corridor is outside of Saint Paul, making acquisition by the City even less of a possibility. My overall impression is that potential re-uses are far into the future. The City's budgeting is so closely tied to immediate needs that we are not able to identify or expend funds for such long term possibilities.

The City appreciates the interest the County has taken in this issue. The County has played a very useful role bringing the affected municipalities together to discuss our concerns and interests in the corridor abandonment. We will be happy to continue participation in those discussions. I hope we can also continue to explore options that meet City and County needs and protect the interests of affected home and property owners adjacent to the abandoned rail line.

Very truly yours,



George Latimer
Mayor

cc: Councilmember Chris Nicosia
Councilmember Kiki Sonnen



CITY OF SAINT PAUL
OFFICE OF THE CITY COUNCIL

Attachment 4-1

KIKI SONNEN
Councilmember

MOLLY O'ROURKE
Legislative Aide

June 2, 1987

RAMSEY COUNTY
PUBLIC WORKS

JUN 08 1987

Mayor Latimer and
City Councilmembers
347 City Hall
St. Paul, Minnesota 55102

Dear Mayor Latimer and City Councilmembers:

Since we are doing away with Council Committees and have not yet refined our procedures, I'm sending you this letter so you have advance notice of this resolution which I've sent to the City Clerk on June 2nd.

The resolution makes the City Council send a request to the Ramsey County Regional Rail Authority so that the Authority seriously review and consider acquiring the Burlington Northern Railroad line from St. Paul to White Bear. The resolution also calls for the Authority to establish an advisory committee made up of residents and affected municipalities. The resolution asks the Authority to report its findings and hold a public hearing. And finally, the resolution specifies that the City will provide staff assistance to cooperate with the Rail Authority.

The reasons for this resolution are several. As you may know, Councilmember Nicosia and I are members of the "Ad Hoc Committee for the White Bear Line," which is chaired by Ramsey County Commissioner McCarty. At the group's last meeting, we voted to support a thorough study and a public hearing. Each municipality which is part of the Ad Hoc Committee was asked to go back to its body and ask for a similar resolution. I am doing that with the introduction of this resolution.

The second reason I'm introducing this resolution is to give some substance and form to the decision-making process of the Rail Authority. It worries me a little that off-hand comments and first impressions voiced by a small group of people who went on a recent train ride along the rail line comprised the decision-making process on this specific line. If the Rail Authority is to have any legitimacy, each and every rail opportunity should be thoroughly studied by professionals, reviewed by the affected residents and the general public, discussed at an open public hearing and then a decision should be made by the Rail Authority. To do anything less does a disservice to the public, whether individuals are for or against acquisition.

My third reason for introducing this resolution is that I believe this rail corridor has vast potential of major recreational importance. This corridor can link St. Paul's proposed Riverfront recreation trail to Phalen Regional Park and then to the State's Soo Line Trail which ends at the St. Croix River. Since the City's existing and proposed Mississippi Riverfront recreational trail can easily be hooked to the State's Minnesota River Trail

KD 6/18/87

Mayor Latimer and City Councilmembers - Page Two
June 2, 1987

system, we have here, in this abandoned rail corridor, the potential to link all three metro rivers together in an impressive trail system. This opportunity could be lost forever unless we act quickly. It is one thing to lose the opportunity after study and review, but to throw it away without giving it a thorough look is just not right.

Another reason I am introducing this resolution is that I hope the Rail Authority would address the potential this rail line could give to east metro development. For example, in the short-term, recreational use and utility easements, such as sewers, could occur before any final decision is made on future transit use. Perhaps in ten or 20 years light rail may make sense on the White Bear Line. Multiple use on the corridor could result in increased commercial and residential investment in the area, increased tax base and new job opportunities. But even if LRT never does pan out, we could still provide significant public purpose in the corridor.

The resolution is also important because it sets up City expectations for citizen participation and specifies a role for the public in Rail Authority decision-making. Those who oppose Authority acquisition of the line may prefer to never having the issue discussed or studied at all. But somewhere, sometime, the Rail Authority will acquire land and we need to establish a good system of citizen participation now so that the public can be involved from the beginning in Rail Authority decisions.

If you have any questions or concerns on this resolution, please call me at 298-5378.

Sincerely,

Kiki

KIKI SONNEN
Councilmember

KS/mb

Enc.

cc: Commissioner McCarty
Ramsey County Rail Authority Members
District Planning Council 2
District Planning Council 4
District Planning Council 5
University UNITED
Ad Hoc Committee Members
Friends of St. Paul and Ramsey County Parks
Commissioner Levine, MnDOT
Commissioner Alexander, MDNR
Don Nygaard, Public Works
Bob Piram, Parks
Steve Grochala, PED

6
WHITE - CITY CLERK
PINK - FINANCE
CANARY - DEPARTMENT
BLUE - MAYOR

CITY OF SAINT PAUL

4-3
Council

File NO. _____

Council Resolution

Presented By Kili Sonnen 6-1-87

Referred To _____ Committee: _____ Date _____

Out of Committee By _____ Date _____

WHEREAS, the State of Minnesota Transportation Regulation Board has approved the Burlington Northern Railroad's request to abandon its rail line from Downtown Saint Paul, along the boundary of District Five Planning Council with Districts Four and Two, past Phalen Lake to White Bear Lake (Phalen Creek Rail Line); and

WHEREAS, the City's Comprehensive Plan identifies the route of this rail line for potential use for rail transit, and as a route for a recreational trail; and

WHEREAS, the City's Comprehensive Plan also identifies the potential for a street serving industrial lands along the boundary between Districts Four and Five; and

WHEREAS, the City of Saint Paul owns a major easement in this rail line right-of-way for storm and sanitary sewer use; and

WHEREAS, the Ramsey County Regional Rail Authority has the power to acquire such a rail line, land bank it for future rail or rail transit use, sell excess land, and allow such ancillary uses such as a street or recreational trail use that does not conflict or prevent future rail use; and

WHEREAS, other municipalities, including White Bear Lake, Gem Lake, Maplewood, and White Bear Township have expressed interest in preserving this rail line right-of-way for future public use; and

WHEREAS, no one city can act unilaterally to acquire the entire rail line being abandoned, nor has the resources to do so; and

WHEREAS, Ramsey County, through its Regional Rail Authority has the ability to acquire, and to act for its municipalities;

COUNCILMEN

Yeas _____ Nays _____

Drew

Nicosia

Rettman

Scheibel

Sonnen

Tedesco

Wilson

_____ In Favor

_____ Against

Adopted by Council: _____ Date _____

Certified Passed by Council Secretary

By _____

Approved by Mayor: _____ Date _____

Requested by Department of: _____

By _____

Form Approved by City Attorney

By _____

Approved by Mayor for Submission to Council

WHITE - CITY CLERK
PINK - FINANCE
CANARY - DEPARTMENT
BLUE - MAYOR

CITY OF SAINT PAUL
Council Resolution

4-4
Council
File NO. _____

Presented By Kiki Sonnen

Referred To _____ Committee: _____ Date _____

Out of Committee By _____ Date _____

THEREFORE, BE IT RESOLVED, that the City of Saint Paul requests the Ramsey County Regional Rail Authority to seriously review and consider acquiring the Burlington Northern Railroad right-of-way from Division Street near Downtown Saint Paul, through the Phalen Creek Valley, to White Bear Lake; and

BE IT FURTHER RESOLVED, that the Ramsey County Regional Rail Authority establish an advisory committee representing affected municipalities and Saint Paul District Councils Five, Four and Two, to advise the Rail Authority on the issues to be considered and the concerns of Ramsey County residents regarding acquisition and use of the abandoned rail line; and

BE IT FURTHER RESOLVED, that the Ramsey County Regional Rail Authority, report its findings on the question of acquisition and re-use of the rail line and hold a public hearing to receive comment before taking action on the question; and

BE IT FURTHER RESOLVED, that the City of Saint Paul will cooperate with Ramsey County Regional Rail Authority with necessary staff assistance to develop an advisory committee and to gather pertinent information needed to evaluate the advisability of public acquisition.

COUNCILMEN

Yeas		Nays
	Drew	
	Nicosia	
	Rettman	_____ In Favor
	Scheibel	
	Sonnen	_____ Against
	Tedesco	
	Wilson	

Adopted by Council: _____ Date _____

Certified Passed by Council Secretary

By _____

Approved by Mayor: _____ Date _____

Requested by Department of: _____

By _____

Form Approved by City Attorney

By _____

Approved by Mayor for Submission to Council



CITY OF MAPLEWOOD

1830 EAST CO. ROAD B

MAPLEWOOD, MINNESOTA 55109

OFFICE OF COMMUNITY DEVELOPMENT

612-770-4560

July 31, 1987

Mr. Pat O'Malley
City Hall and Courthouse
Suite 356
St. Paul, MN 55102

BN CORRIDOR

Please distribute the enclosed resolution to the county light rail transit authority and inform me whether a representative from Maplewood should attend a meeting.

GEOFF OLSON, AICP - DIRECTOR OF COMMUNITY DEVELOPMENT

mb

Enclosure
cc: Al Lovejoy

Pursuant to due call and notice thereof, a regular meeting of the City Council of the City of Maplewood, Minnesota, was duly called and held in the Council Chambers in said City on the 27th day of July, 1987.

The following members were present: John Greavu, Mayor; Councilmembers Norman Anderson, Gary Bastian, Frances Juker and Charlotte Wasiluk.

The following members were absent: None.

Councilmember Bastian introduced the following resolution and moved its adoption:

WHEREAS, Ramsey County has established a regional rail authority; and

WHEREAS, this rail authority has the power to acquire abandoned rail corridors; and

WHEREAS the Burlington Northern corridor has been abandoned within the cities of Maplewood and St. Paul; and

WHEREAS, Burlington Northern plans to sell the corridor in sections to private and public interests if a public offer is not made; and

WHEREAS, this corridor should be acquired for public use; and

WHEREAS, the regional rail authority is in the best position to acquire this corridor and represent the multiple agencies and jurisdictions interested in its use.

NOW, THEREFORE, BE IT RESOLVED, that the City of Maplewood urges the regional rail authority to appoint a corridor advisory committee to study and develop a proposal to acquire the abandoned Burlington Northern rail corridor; and

NOW, THEREFORE, BE IT FURTHER RESOLVED, that this task force include representatives from the City of Maplewood.

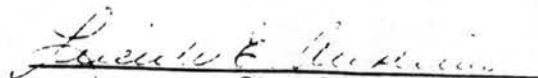
Seconded by Mayor Greavu.

Ayes - all.

STATE OF MINNESOTA)
)
COUNTY OF RAMSEY) SS.
)
CITY OF MAPLEWOOD)

I, the undersigned, being the duly qualified and appointed Clerk of the City of Maplewood, Minnesota, do hereby certify that I have carefully compared the attached and foregoing extract of minutes of a regular meeting of the City of Maplewood, held on the 27th day of July, 1987, with the original on file in my office, and the same is a full, true and complete transcript therefrom insofar as the same relates to abandoned rail corridors.

Witness my hand as such Clerk and the corporate seal of the City this 29th day of July, 1987.


City Clerk
City of Maplewood, Minnesota

REQUEST FOR BOARD ACTION RAMSEY COUNTY

7

Department Summary
To be completed by Originating DepartmentRegional Railroad Authority
Originating Department

Authorized Signature

Date

Board Action Requested

INFORMATIONAL ONLY

Presentation of information from
Burlington Northern Railroad concerning
abandoned right-of-way and use of joint
track agreement.

Request Justification

Budgeting and Accounting

County Attorney

Risk Manager

Data Processing

Previous Action taken on Request

Date / Time

Received By

County Executive

Director

Executive Director Summary
To be completed by County Executive Director's Office

Comments / Recommendation

Documentation certified complete for:

R.C. REGIONAL RAILROAD AUTHORITY

Committee / Meeting Date

8/24/87

Signature

8/18/87

Date

Committee / Meeting Date

Signature

Date

County Board Date

Signature

Date



Office of the Executive Director

286 Court House 15 W. Kellogg Blvd.
Saint Paul, Minnesota 55102
(612) 298-5980

Terry Schutten, Executive Director

County Commissioners

Diane Ahrens
John T. Finley
Ruby Hunt
Duane W. McCarty
Hal Norgard
Donald E. Salverda
Warren W. Schaber

M E M O R A N D U M

TO: Commissioner Ahrens
Commissioner Finley
Commissioner Hunt
Commissioner McCarty
Commissioner Norgard
Commissioner Salverda
Commissioner Schaber

FROM: Patrick T. O'Malley
Director of Property Management

DATE: August 14, 1987

RE: Status Report

At the last Regional Railroad Authority meeting, we were asked to pursue discussions with the Burlington Northern Railroad concerning the following issues.

ITEM: What is the purchase and lease cost of the recently abandoned line running from St. Paul to Maplewood?

RESPONSE: The Burlington Northern has requested that if the County wants to buy this property, they should first have the property appraised. The Burlington Northern does not have a value on the property and would need to know its value before giving the County a purchase price or a rate on leasing.

ITEM: Check into the feasibility of joint track agreements, particularly on the most southerly east-west corridor of the Burlington Northern line.

RESPONSE: The Burlington Northern is willing to pursue discussions concerning using their lines in a joint track agreement. They need to know frequency of use and/or a timetable for track use before giving us information on or commitment on using the line. According to the BN, the line is used frequently by themselves and other railroads.

Memorandum Re: Regional Railroad Authority Status Report
August 14, 1987
Page 2

The Burlington Northern is still pursuing discussions with its staff concerning the impact of a shared track with LRT use. We hope to have more detail information on this at the next meeting. To provide Ramsey County with ideas for sharing use of the track, the Burlington Northern needs to know frequency of use of the line before agreeing to a plan.

PTO/cam



BURLINGTON NORTHERN RAILROAD

6-4
Twin Cities Region
176 East Fifth Street
P.O. Box 64960
St. Paul, Minnesota 55164

August 31, 1987

Mr. Patrick T. O'Malley
Director of Property Management/Ramsey County Board Coordinator
Ramsey County Regional Rail Authority
286 Court House
15 W. Kellogg Boulevard
St. Paul, Minnesota 55102

Dear Mr. O'Malley:

Your August 18, 1987 letter to Mr. Roger Nelson has been referred to me for handling. I will serve as coordinator of the "Claymont Line" project for Burlington Northern Railroad.

The issue of shared trackage use is questionable. Both the density and time-sensitivity of this traffic, as well as liability considerations, preclude a workable solution to a joint use arrangement.

Our recent abandonment of a portion of the Claymont line supported several City of St. Paul projects, which may be in conflict with a proposed light rail transit system. We are in the process of removing the rail and should be done around October 15.

Please feel free to call me at 298-7150 if you'd like to discuss any of the aforementioned issues, or to set up a meeting to review the project's status and direction.

Sincerely,

Jean Remus Arndt
Director Operations Services

652/bdoc0831

cc: Mr. H. D. Robinson
Mr. O. J. Norman - Glacier Park Company - Minneapolis

RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY

REQUEST FOR BOARD ACTION

7

<u>Chairman Finley</u> Originating Department		Board Action Requested JOINT MEETING RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY AND REGIONAL TRANSIT BOARD February 29, 1988
<u>John T. Finley</u> Authorized Signature	<u>3/18/88</u> Date	

Request Justification

At the initial Joint Meeting with the RTB, the next joint meeting was scheduled for February 29, 1988, to be held at 4:00 P.M. in the Large Conference Room of 316, Court House.

<u>Budgeting and Accounting</u> <u>County Attorney</u> <u>Risk Manager</u> <u>Data Processing</u> <u>Previous Action taken on Request</u>		Date / Time Received By
---	--	--

Comments / Recommendation

Documentation certified complete for:

<u>Committee / Meeting Date</u> <u>February 23, 1988</u> Board Date	<u>Signature</u> <u>Signature</u> <u>Signature</u>	<u>Date</u> <u>Date</u> <u>Date</u>
	<u>2/18/88</u>	<u>2/18/88</u>



John T. Finley, Chairman

District 3

Diane Ahrens

District 4

Ruby Hunt

District 5

Duane W. McCarty

District 1

Hal Norgard

District 7

Donald E. Salverda

District 2

Warren W. Schaber

District 6

AGENDA

JOINT MEETING

Room 316 Courthouse
15 W. Kellogg Blvd.
St. Paul, MN 55102
Phone 298-4145

RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY

and

REGIONAL TRANSIT BOARD

Monday, February 29, 1988

316 Court House

1. Minutes of the February 8, 1988 Joint Meeting
2. Outline of Draft Midway Corridor Report (attachment)
3. New Information on Alignments/Screen 3
4. Update on Downtown St. Paul Issues
5. Review of next steps in process
6. Next meeting

MINUTES

JOINT MEETING

RAMSEY COUNTY REGIONAL RAILROAD AUTHORITY

and

REGIONAL TRANSIT BOARD

February 8, 1988

Chairman John Finley of the Ramsey County Regional Railroad Authority opened the meeting at 4:00 P.M. on Monday, February 8, 1988, which was held in Room 316 of the Court House.

Chairman Finley explained that the purpose of the meeting with the Regional Transit Board is for an update from the consultants which have been hired by the RTB to do a study on the Midway Corridor between the two downtowns and the University of Minnesota. Both Boards have approved the work plan under which the BRW is proceeding to conduct the study. There are two citizens groups who are reviewing the study and working with BRW as it is going through, one is called the Midway Corridor Task Force which is a group of citizens in the affected area, which were appointed by the Ramsey County Board, and the other is our Citizens Advisory Committee which has also been appointed by the Ramsey County Board.

Chairman Finley introduced himself, he is Chairman of the Ramsey County Regional Railroad Authority, and asked that others present introduce themselves also. The people present were Elliott Perovich - Chair of the RTB, Commissioner Hal Norgard, Commissioner Duane McCarty, George Isaacs RTB, Alison Fuhr - RTB, Commissioner Ruby Hunt, Kathy DeSpiegelaere - Ramsey County, Katie Turnbull - RTB, Commissioner Donald Salverda, Commissioner Diane Ahrens, Carole Faricy - RTB, Rochele Graves - RTB.

Members Absent were Commissioner Schaber, Doris Caranicas - RTB, Ruth Franklin - RTB, Paul Joyce - RTB and Edward Kranz - RTB.

Chairman Finley called on Katie Turnbull from the RTB to give an introduction to the Midway Corridor Light Rail Transit Study.

Ms. Turnbull addressed the joint Boards, this work has been going on since before Christmas, both groups adopted the joint work program which has really has four major work activities - the alignment analysis which has been a major focus and on which will be heard an update at this meeting, a update with Hennepin County activities have been moving forward there, they have been in discussions with them about what happens with the portions where they currently made a recommendation on the University Campus, public participation and public information process which Ms. DeSpiegelaere will be talking about, and then the financial feasibility and scoping some different analyses and alternatives which will also be touched on briefly today. As was mentioned, the RTB issued an RFP through an agency, a consultant selection process followed, and the firm BRW was selected with the sub consultants of Bechtel, LTK, and RH Pratt. These groups have been working with the different Advisory Committees and the staff from Ramsey County, RTB, City of St. Paul, Mn/DOT, Metropolitan Transit Commission and the Metropolitan since the first of January. A great deal of activities have been going on, and this will be seen in the presentations this afternoon.

Ms. Turnbull said they wanted to keep the presentations very short, to allow an opportunity for the Boards to raise questions or discuss among themselves the status so far. One of the items on the agenda today is the Transit Philosophy, which will be a good topic for discussion.

Chairman Finley called on Kathy DeSpiegelaere to explain the roles of the participants.

Ms. DeSpiegelaere presented a brief summary, in 1980 the Regional Railroad Authority bill was passed for the County to provide for rail passenger traffic. In 1984 the Regional Transit Board was created to perform transit planning for the Twin Cities metro area. Ramsey County formed a Regional Railroad Authority in 1987. The law says that this Authority may engage in activities related to light rail transit.

A Decision Process and Information Flow Chart was distributed, this shows that the RTB and Ramsey County are partners in the study that is currently being conducted on alignment. Additional agencies and citizens groups are involved, Metro Council, Hennepin County, City of Minneapolis, City of St. Paul.

The Citizens Advisory Committee consists of fourteen members throughout the County - was formed in September, and will give a recommendation to the Regional Railroad Authority. A Corridor Task Force was formed recently and will also give a recommendation on alignment. Agency staff participating includes representatives from the MTC, St. Paul, MN/Dot, Metro Council, University of Minnesota. and Capitol Area Architectural Planning Board in addition to Ramsey County and the RTB. The primary consultant is BRW.

Chairman Finley called on Dick Wolsfeld to give an information update on the Process - where they are in the study, and how these activities are being coordinated.

Dick Wolsfeld addressed the Boards, universe location alternatives between downtown St. Paul and downtown Minneapolis will be discussed, and how they will go about narrowing those alternatives. Mr. Wolsfeld then displayed a large map, and pointed out the six base alternatives they started with. First, is the Burlington Northern Alignment which follows the northern BN mainline track, this happens to be in the same general vicinity of the proposed transitway between the St. Paul Campus and the West Bank Campus of the University of Minnesota. The second alternative was the southerly BN line, which is also shared by the Soo Line, so they have two different ways of getting into downtown St. Paul with that railroad alignment. The third alternative followed University Avenue between the two downtowns, and then came across Washington Avenue to get to Minneapolis. The next alternative is on I-94, and that could be anywhere on the frontage roads, in the side slope, or possibly even a median at this point in time. The fifth is marginal, and the sixth is the Soo Line has a track which crossed University and Washington split, and then goes past the Dartmouth interchange and follows I94, parallels that, and then swings further to the SE, and goes over to a connection with 35E. This Soo Line RR is in the process of being abandoned over a certain share of it, and there is a possibility for joint operation over the rest. They have taken a number of the alternatives and tied them into the Soo Line track. The sixth one is what

we call the Soo Line alignment, initially they had that coming in from West Seventh Street and coming into the downtown area. There are lines shown which are the results of the work they have done with the two Advisory Committees in terms of them making suggestions on additional alternative, one is to follow 35E, and then come in along Shepard Road, other is to stay on 35E until you come into the downtown.

This was the universe of alternatives that they started with. There were four other alternatives that they looked at and rejected because of severe problems, and the fact that they did not serve major destinations, so they were dropped.

Mr. Wolsfeld mentioned the four alternatives that were dropped, the first was the Soo Line between Trunk Highway 280 and Hiawatha, and where this is - he pointed out on the map, it is a single track bridge which is a very important part of the Soo Line, and they have told us that connection is not available. Otherwise, it might have been possible to come up the Soo Line and into Hiawatha to get to downtown. The second problem with this would be that it bypasses the University of Minnesota.

The second alternative dropped was Marshall Lake Street between Snelling and Hiawatha because again it missed the University of Minnesota, this would have been an alternative which he pointed out on the map.

The third was Summit Avenue between the shortline and West Seventh, and the reason that was dropped was its residential character and the historical nature of the street.

The fourth was 35E between the shortline and downtown St. Paul because of the lack of available right of way.

Mr. Wolsfeld has pointed out to the Committees if they want the consultants to put them back in and analyze them they would do it.

The questions for evaluating alternatives and selecting a preferred alternative for light rail service between downtown St. Paul and downtown Minneapolis, and the process they have defined to do that is what technicians would call a screening process. They will look at the alternatives, in increasing levels of detail as they get into the planning process. The three possible screens for looking at alternatives - is first, they would like to have each of the six alternatives evaluated as to whether the right of way is available, roadway capacity available as we may be taking away roadway capacity - is there other roadway capacity, and is it compatible with residential uses. These three criteria are what the Committees were asked to use as the basis for the initial screening of alternatives.

Then, they would get into more detail, keep those three criteria, and add four more, does it serve the markets that we want to serve, what are the generalized capital costs, what is the development potential of the alternatives, what is the impact on transit dependence which they have defined as under 16, over 65, of low income, or of households without any automobiles available, a zero car household. These seven criteria would then be used to evaluate the remaining alternatives. Then, when they get down to the final two or three, they would then get into significant more detail in terms of still looking at right of way available, but looking at how it would connect to other LRT lines, more detailed analysis of the traffic impacts, the

development potential, more detailed analysis of the ridership in looking at travel times, market sizes, parking potential, how it relates to the feeder busses, proximity to the origin and destinations and what the ridership differences then are amongst those remaining alternatives, and transit system integrity which looks again at the transit dependence, impact on current transit users in terms of station spacing and walk time to the stations, land use capability, environmental impacts, generalized in terms of air quality, noise, vibrations, esthetics, capital operating costs and constructions impacts. As they narrow the alternatives, the idea is to increase the amount of detail about each of those alternatives. To date using the Screen 1 criteria, what the two Advisory Committees have recommended is to drop the northerly BN alignment, and to drop the Marshall Dayton alignment, so 1 and 5 have been proposed to be dropped. In addition, one of the Committees voted to drop, but to give further consideration to the Soo Line and 35E and West Seventh Street, and they are at present looking at the right of way availability.

Mr. Wolsfed informed the Committee that the Minnesota Department of Transportation has joined the staff, and there are some court findings relative to 35E in terms of design, the median, what goes in the median, that may preclude light rail transit from being added to that corridor. They are in the process of researching these activities.

The reasons for dropping the northerly one is that they met with the BN RR people and they told us that this is an important mainline and that right of way is generally not available as has been shown. Line 2 while there may be some problems, there is at least some potential there.

Marshall Dale analysis consisted of traffic lines, how much would be left after the facility is built, what happens to the sidewalk. So, on the basis of this analysis, they voted to drop this alternative.

George Isaacs said one of the things that we are looking at joint operation with a an operating railroad, and it is a concern to him in the fact that there are only one or two examples where there is a very moderate amount of freight operating on a light rail line, but if you get other than moderate, there are some problems. He discussed Los Angeles they had some problems with the Union Station at Long Beach, where they were going to be running down the same corridor, not on the same tracks as the Southern Pacific, now they have added another \$67 million to move the Southern Pacific into another area. It is a caveat that we look at joint operations very, very carefully, although the gauge is the same, the rail looks the same, the operation is not the same. We should be very careful in any kind of evaluation, as the host railroad is the one who controls what goes on if you have joint operation.

Chairman Finley said in San Diego when they acquired the rail line, the freight operation is contracted out by the light rail entity to a different carrier like a transfer carrier as opposed to the one who formerly owned the railroad, so that they carry on the freight operation, but the control as Mr. Isaacs pointed out is very important, so the control remains with the political subdivision that is operating the light rail transit instead of having the railroad controlling the movement of the freight, that is an alternative. San Diego took complete control of everything then contracted out for the movement of the freight at hours when light rail was

Mr. Wolsfeld said relative to joint operations, the Soo Line and BN are both unanimous in their agreement that joint operations does not mean mixing light rail and freight on the same track over the same time frame. For example, they would say they would move the freight from midnight to 6 A.M., and you have light rail service during the other 18 hours of the day. If joint operation means alongside, they want a barrier, they want a barrier separating the light rail from the heavy rail (this would be a crash proof barrier). The crush loads as engineers say of light rail vehicles is about 120,000 lbs and of a train is it about 800,000 lbs, so it is about a 6 to 1 ratio, it is like a semi hitting a Volkswagen. Both of them would not tolerate joint operations, mixing those two in the same time period over the same track.

Commissioner McCarty asked Mr. Wolsfeld to again explain the Marshall Avenue corridor, and expand on this. Mr. Wolsfeld generally the reasons on that street relate to the lack of available right of way in the case of one way streets, when you take the 12 or 13 feet for light rail, that either requires removing parking or taking a lane of traffic, which is one of the issues, the other issue then is the compatibility of light rail transit with the residential neighborhood. Mr. Wolsfeld showed a plan with one way contra flow, this means that the light rail vehicle operates in the opposite direction from the one way flow. The reason for that is that if people are driving against it, when they make a right or left turn, it is much easier, they can see the oncoming vehicle as opposed to when they are running the same way. He pointed out the 12 foot, the boulevard, the walk, parking, you are left with one traffic lane as opposed to two, unless you take the parking off. The other issue related to residential character of the two neighborhoods, which is probably a more prevailing reason than the impacts, he showed generalized looks at the current traffic volume on the streets, the current capacity of the street system, and the ratio of the demands and supply, and presently all of those streets are operating at a reasonable level of service, University Avenue is about 66 2/3 to 90%, then with light rail transit, some capacities are reduced, then on Marshall you would still have acceptable traffic operations. That was not a problem, the primary issue on Marshall was the compatibility with the residential character of the neighborhood.

Chairman Finley asked Mr. Wolsfeld to review what the current volumes are the streets, as some Commissioners have not had an opportunity to review the data that has been provided. Mr. Wolsfeld said that for each of the streets they are looking at current demand for travel, current traffic volume, and current capacity of the street system to accommodate that volume, then they ratio the demand to the supply, when the demand exceeds the supply, and that ratio is over 1, you have traffic operational problems, so you want that ratio less than 1, and then re-computed the capacity with the light rail transit, taking a lane out of the system as the case may be, then recomputed the same volume against the denominator which has been reduced as you have taken over the light rail. For University Avenue the current traffic volume varies between 17,000 to 26,000 per day, the capacity is approximately 30,000 per day. They did the same for Marshall Avenue, they did it for Selby, for West Seventh on the shortline. They have done this same kind of analysis for right of way, acceptable traffic operations, and residential compatibility.

Mr. Wolsfeld explained the West Seventh Street proposed light rail, and it was felt that the right of way was not practical for this.

Mr. Isaacs asked if in the analysis of the traffic alignments a certain percentage would not be using University Avenue with a vehicle, but would be using light rail, so there may not be less use as far as cars are concerned, but you would think there would be some diversion, so that in fact, the number of cars at the light rail would not be as high as the number of cars before light rail. Mr. Wolsfeld said they are going to use 30 to 60% of the capacity and there really isn't a problem, or are we getting very close by taking some of the street capacity away to its limits. When they get to the succeeding level, we will then almost go on an intersection by intersection basis to do the capacity analysis, and they will also look at mitigation do they add a right turn lane, put in a double left turn lane, are there other things that can be done to improve the signalization in order to solve the problems.

Mr. Wolsfeld showed the diagram of University Avenue, this is different for the two way vehicles than was shown for the other. Under this concept for University Avenue the light rail transit service would be located down the center of the street, there would then still be two traffic lanes in each direction, the parking would still be on both sides of the street. There is 120 feet of right way, that would leave approximately 12 feet for a boulevard on either side. That, does not allow anyone to get on or off the vehicle where you put stations in, and stations generally are 9 to 10 feet wide, and that allows the people to get on and off the vehicles. Those who have seen the Portland Burnside Corridor is identical to the way that it would be applied on University Avenue. Opposite of this station is where you put the left turn lanes, so, you shadow the left turn lanes with the station, they are offset from each other, and that is where you put in the turn lanes. Then, you would lose parking on both sides at the station locations with the 120 feet of right of way.

Mr. Isaacs pointed out, if in fact it replaces the local busses stopping every block which takes a certain number of parking spaces, you may end up with a no net loss depending upon the spacing of the stop, as right now wherever there is a bus stop on either side, there is at least three parking spaces that are lost. Parking space has to be determined.

Commissioner Hunt would like to know how long a station would be. Mr. Wolsfeld said length is generally determined by the length of the train or the vehicles, they would like to have at least 300 feet of width for the station, and that would easily allow to run 3-car trains with a 90 foot vehicle, you could even do 4 car trains with a 70 foot vehicle. The standard is 90 feet long. That restriction is going to be dictated by the shortest block in the system, so the ends of the vehicles do not hang out into the intersection. These are from curb face to curb face are about 330 feet so three 90 foot vehicles would work fine throughout downtown Minneapolis and St. Paul.

Chairman Finley asked if Mr. Wolsfeld had an overlay to show this with the rail corridors, and Mr. Wolsfeld said he did not have this in relationship to widths. The minimum railroad right of way is 50 feet, in some cases 100 feet, the light rail

transit without a station takes about 24 feet to 27 feet, then if there is parallel railroad service, you need a barrier, and if you have stations, it would be about 47 feet in width where you have stations.

Commissioner McCarty asked if you are using the same platform to take passengers on, as you are using to take passengers off, and the width of the platform. Mr. Wolsfeld said the platform would be 9 to 10 feet. They would have a shelter area, and there would be a barrier on the back to separate the automobiles from people waiting.

Another issue Mr. Wolsfeld said they would talk about is the access to the elderly and handicapped, which has turned into a very complex issue. If you want to load people at the floor height of the vehicle you are up about 40 inches off the ground. This platform is much higher than that, it is not a street level platform, and elderly -handicapped accessibility is a major issue that we have to deal with.

Ms. Fuhr asked why they did not have a station on the other side. Mr. Wolsfeld pointed out on the plan that the third vehicle is in the turn lane, and there would be another station across the intersection, and on the other side of the intersection is the other left turn lane.

Chairman Finley asked why on some plans the vehicles were shown to one side, and on University Avenue you have them in the middle, can it be moved over so that we might have an alternative to solve the handicapped problem. Mr. Wolsfeld said there are three alternatives, you can run them down the center, run split open, and run against the curb, or run them together, but either on one side or the other side. There are advantages and disadvantages of each. By running it in the center you minimize the conflict with the outside lanes, and you preserve the parking lane. If you ran split operation on University Avenue, that would dictate that all the parking on both the north and south sides of the street would be eliminated, so that would not be a very popular alternative. So, that is why they are in the center, so as to preserve the parking along University Avenue, reserving it on both north and south sides. Whereas, on Marshall they said they could leave it on one side of the street, and people could walk across, which would have been easier than walking across University Avenue. Primary reason is to preserve the on street parking.

Chairman Finley would like to know where in the process, as it goes through the Advisory Committee and respective Boards are they going to be submitting the rationale when you get down to the final plans, as the County Board members are not as familiar with transit as the members on the Regional Transit Board, as the RTB may have done a lot of elimination over the course of the years that we would now know why something is not being suggested. It is important that the County Board know why something is not being suggested, as to why something is being suggested. He asked that the RTB and the consultant bear with us as we go through the process. Being so new at this game, we want to try to make decisions as much available information as possible.

Mr. Wolsfeld said it is up to the County Board as to how much time they want to spend on the issue. Both of the Advisory Committees are very good advisory committees, they are taking their tasks very seriously, spending a lot of time analyzing the

alternatives, asking very good questions, and are doing a good job. You have a problem all the time as to how much time you want to spend on a particular issue, this is a very important issue, and staff would be prepared to spend as much time as the Board wants on it.

Chairman Finley said from the Board's standpoint, they are used to receiving a lot of the information in writing so that they can read it, evaluate it, and then ask questions. Through the Advisory Committee screening we may probably be asking some written, basic criteria that is being suggested here, rather than just an outline form. He has been reading everything that has been coming through, and it is a lot of material, and not everyone has the opportunity to review it.

Mr. Wolsfeld thinks it might be appropriate when we get through the second screen, and we find that maybe find two to four alternatives to see if everyone is in general agreement with that so that they are not analyzing alternatives that everyone agrees are not feasible or if they may have missed an alternative in the Advisory Committee's process of screening process. Maybe the Board would like to comment with advice prior to the detailed analysis.

Ms. Fuhr asked where Amtrak is as shown on the layout displayed, and Mr. Wolsfeld pointed out on the map where No. 6 is shown, joined at Minnesota Transfer.

Chairman Finley has told the Advisory Committee that although the County has the goal of late February, that if they do not feel comfortable in coming up with their decisions at this point because of the fast track, that the Board would feel better if they were more comfortable with taking more time to arrive at decisions they should do so.

Ms. Turnbull echoed a comment which Mr. Wolsfeld made that both of the Advisory Committees have done a excellent job, and made a great effort attending the Committee meetings. They are really spending the time in asking good questions. It is a very good group.

Chairman Finley asked if Mr. Wolsfeld wished to touch on the financing information. The Ramsey County Board received at the last meeting a breakout as to the effect the fourteen different criteria that Hennepin County is looking at, and how it affects Ramsey County.

Mr. Wolsfeld discussed the status report of Hennepin County Financial Planning Activities. They have initially considered between 12 and 15 different funding sources. Financial Advisory Committee was formed under the direction of Commissioner Spartz, which is composed of private sector representatives, from the banking community, regional transportation officials, members of the State House and Senate, and they narrowed those alternatives to five from the fifteen: Property Tax, Surcharge on License Plate Fees, Motor Vehicle Excise Tax, Tax Increment on Development Around Station, and Sales Tax on Parking Fees.

Mr. Wolsfeld distributed this Status Report of February 5, 1988 to the members present. They gave Hennepin County a set of scenarios for Stage 1 and a 20 year plan were developed. The preliminary capital costs numbered between \$250 and \$300 million on Stage 1, and \$500 to \$600 million on the 20 year.

Mr. Wolsfeld gave them a detailed analysis that each of the sources of revenue would generate, and gave them a refined set of Stage 1 components, and better capital costs, and as a result of that they have reached some conclusions that Stage 1 should be funded at a level of \$375 million, this would require 1 mill property tax levy, 10% surcharge on license fees, 30/30 Motor Vehicle Excise Tax Transfer which is sales tax on automobiles and trucks, and then Tax Increment around the stations, they would sell the \$375 million in bonds over a six year time frame. The thought in Hennepin County is to start on two, possibly different three corridors as part of the Stage 1 plan. For the State Legislature to give Hennepin County the authority to issue a surcharge and to divert the MVET from the general fund is a long shot. The County would have to enter into an agreement with the local unit of government for the tax increment plan.

Mr. Wolsfeld said since the two counties have to join, it would be better if they were levying the same, but they do not have to be. This is what the consultant was suggesting as an approach to funding for the Midway Corridor was to have Ramsey County review and comment on these sources, and whatever other sources Ramsey would think as appropriate. They would then begin the productivity study of looking at these particular sources in terms of what a mill generates, surtax, MVET, the potential for federal funding is very different for Ramsey County and the Midway Corridor and other corridors in Hennepin County. It is much higher here, and then there is the potential for tax increment. It would be his suggestion for Ramsey to narrow down the kinds of revenue sources that might or might not be possible.

In response to Commissioner Ahrens question, Mr. Wolsfeld said the current thinking on operating deficits, is that the MTC would operate the light rail transit service, due to integration with busses, etc. If that happens, Hennepin County assumption would be that they would build the system, then they would turn it over to the MTC to operate, maintain, and to fund any operating deficit. This is a long way from being agreed upon, but this is the current thinking.

Chairman Finley feels there is no question that it is going to have to be operated metropolitan wide by someone.

Ms. Fuhr then asked about the MVET as to how much would be available, and will that transit money (MVET) come to the RTB to be assigned, assuming that we get it. Mr. Wolsfeld said in the current motor vehicle tax, there is \$238 million of essentially sales tax on automobiles and trucks that goes into the general fund. Presently, of that MVET 5% goes into a transportation fund. There is also a roadway portion, which is 75% of the total, and a transit which is 25% of the total, then of the transit, that is split metro and outstate 80/20, and then what Hennepin County said is of the 80, they would like 30, which would leave 70% for other transit needs, etc. You would end up with \$4.2 million, so this was coined the 30/30 plan.

Mr. Wolsfeld then discussed the transit philosophy, which is the most important part of the process. There are two approaches, you adopt a philosophy as you go into the project, the other is that you look at the information, different philosophies, and a philosophy evolves and comes out of the planning process. They would suggest that it be more appropriate to let the transit philosophy evolve and come out of the

process as opposed as going into the process. They listed A which says the station spacing ought to be fairly a mile plus in length, places to achieve top speed of 50 miles an hour, an average operating speed of 32 miles per hour with stops, parallel bus service would have to be significant, and right of way that is fully controlled.

B shortens the station spacing, lowers the top speed, lowers the operating speed, allows you to reduce some parallel bus service, and allows the less restricted right of way.

C would mean the busses would quarter mile stop, 30 to 35 miles an hour, 12 mile operating speed which is about what the busses attain, you then could eliminate all parallel bus service, but it would still be defined as light rail transit as you would be in a preferential right of way.

Light Rail Transit has flexibility, you can take the same vehicle, same rail, same overhead power source, then you could have stops every mile, every half mile, or every quarter mile.

If one of these transit philosophies was adopted today, it would probably dictate which of the four alternatives are left if you would choose a preferred alternative. So, what Mr. Wolsfeld is saying, let's be thinking about this in terms of what you want light rail transit in the Midway Corridor to do, provide a service more competitive with automobiles, want to have it more like the bus, or do you want something in between. When all the information comes out from the study, we will study that and put it into a transit philosophy in terms of what these Boards feel is the role of light rail in the Midway Corridor.

Mr. Wolsfeld does not think we should categorize any of these as good or bad, they should be categorized as different, these are different ways of applying the technology. Different applications of this can be seen all over the country. Different philosophies can be applied to the same corridor. Chairman Finley commented that different criteria can dictate philosophy and the type of corridors.

Chairman Finley asked about the 94 corridor, in looking at that further, will they be finding out what is available. Mr. Wolsfeld is meeting with the project manager for the reconstruction of 94, and will be working very closely with MnDot as to what is feasible or not feasible.

Mr. Wolsfeld then distributed a Summary of System Standards which covered Hours of Service, Service Frequency, Fare Collection, Vehicles, Performance, Stations, and Elderly and Handicapped Access.

Chairman Finley thanked Mr. Wolsfeld for presenting this very complex information in a short time.

Commissioner Norgard asked about the BN, and whether that could be transferred over to the lower track. Mr. Wolsfeld said they have a total of 70 trains per day on the northern route, this is a critical link in their system to the east and the west,

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Ms. Fuhr commented that she feels the communication is very important, and this meeting will be very beneficial for both Boards, will these joint meetings continue.

Chairman Finley said we will try to continue with the Advisory Committees, and this will go to the Citizens Advisory Committee from the Task Force. Then we could have another information session.

Ms. DeSpiegelaere said the study should be completed by February 25th, and the date of February 29th was tentatively suggested.

Chairman Finley, as everyone present had agreed, said the next Joint Meeting will be set for Monday, February 29, 1988 at 4:00 P.M. in the Conference Room of 316.

There being no further matters to come before the Boards, the meeting was adjourned by Chairman Finley.