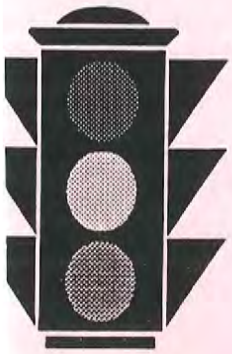
1995 MUNICIPAL SCREENING BOARD DATA

June, 1995



May 1995 (612) 296-1662

TO : Municipal Engineers

SUBJECT : Municipal Screening Board Data

Enclosed is a copy of the June 1995 Municipal Screening Board Data Booklet.

The data included in this report will be used by the Municipal Screening Board at its June 13 and 14, 1995 meeting near Grand Rapids to establish unit prices for the 1995 Needs Study and the resulting 1996 apportionment. The Board will also review other recommendations of the Needs Study Subcommittee and Unencumbered Construction Subcommittee as outlined in each of their minutes.

Should you have any suggestions or recommendations regarding the data in this publication, please refer them to your District Representative along with a copy to this office, or call the above number prior to the Screening Board Meeting.

A limited number of additional copies of this report are available on request.

Sincerely,

Kenneth Straus

Kenneth Straus
Municipal Needs Manager

Enclosures:
1995 Municipal State Aid Screening Board Data Booklet.

1995 MUNICIPAL SCREENING BOARD DATA

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1995 MUNICIPAL SCREENING BOARD

OFFICERS

Chairman	Dave Sonnenberg	Minneapolis	(612) 673-2443
Vice Chairman	Dale Swanson	Willmar	(612) 235-4202
Secretary	Brian Bachmeier	Oakdale	(612) 739-5086

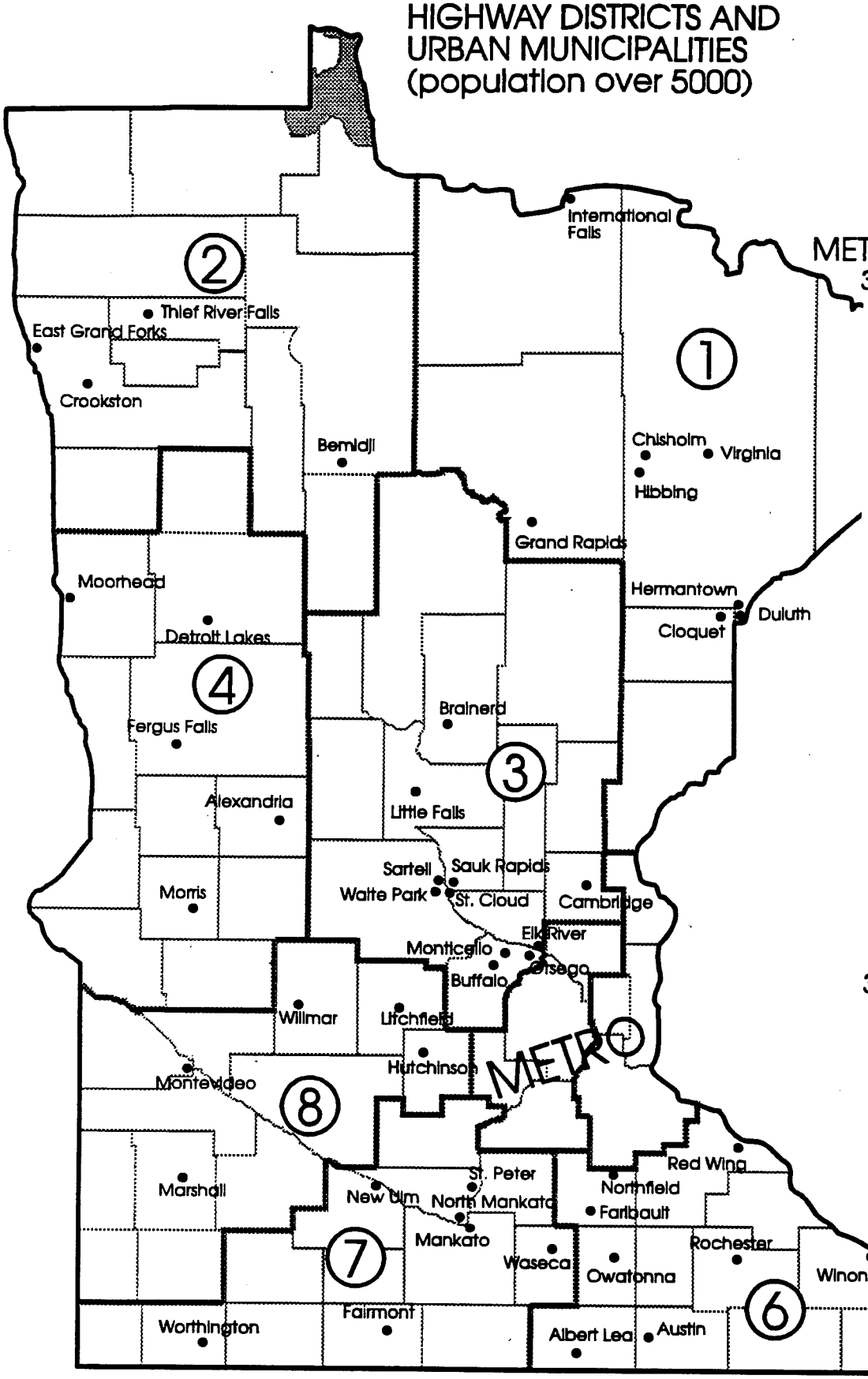
MEMBERS

District	Served	Representative		
1	1	Dave Halter	Grand Rapids	(218) 326-7602
2	2	Gary Sanders	East Grand Forks	(218) 773-1185
3	2	Curt Kreklau	Buffalo	(612) 253-1000
4	1	Gary Nansen	Detroit Lakes	(218) 847-5607
Metro-West	3	Larry Anderson	Prior Lake	(612) 447-4230
6	1	William Malin	Winona	(507) 457-8269
7	3	Ken Saffert	Mankato	(507) 387-8600
8	2	John Rodeberg	Hutchinson	(612) 587-5151
Metro-East	3	Brian Bachmeier	Oakdale	(612) 739-5086
Three Cities		Kenneth Larson	Duluth	(218) 723-3278
of the		Ramankutty Kannankutty	Minneapolis	(612) 673-2476
First Class)		Paul St. Martin	St. Paul	(612) 266-6118

District	Alternates		
1	David Salo	Hermantown	(218) 727-8796
2	David Kildahl	Crookston	(218) 281-6545
3	Bret Weiss	Monticello	(612) 595-5705
4	Tim Schoonhoven	Alexandria	(612) 762-8149
Metro-West	Jack Bittle	Champlin	(612) 421-1955
6	David Olson	Albert Lea	(507) 377-4325
7	Larry Read	Fairmont	(507) 238-9461
8			
Metro-East	Dave Jessup	Woodbury	(612) 731-5791

STATE OF MINNESOTA

HIGHWAY DISTRICTS AND URBAN MUNICIPALITIES (population over 5000)



METRO MUNICIPALITIES

39 Metro West Cities

Andover
Anoka
Blaine
Bloomington
Brooklyn Center
Brooklyn Park
Champlin
Chanhassen
Chaska
Columbia Heights
Coon Rapids
Corcoran
Crystal
East Bethel
Eden Prairie
Edina
Fridley
Golden Valley
Ham Lake
Hopkins
Lino Lakes
Maple Grove
Minneapolis
Minnetonka
Mound
New Hope
Oak Grove
Orono
Plymouth
Prior Lake
Ramsey
Richfield
Robbinsdale
St. Anthony
St. Louis Park
Savage
Shakopee
Shorewood
Spring Lake Park

31 Metro East Cities

Apple Valley
Arden Hills
Burnsville
Cottage Grove
Eagan
Falcon Heights
Farmington
Forest Lake
Hastings
Hugo
Inver Grove Heights
Lake Elmo
Lakeville
Little Canada
Mahtomedi
Maplewood
Mendota Heights
Mounds View
New Brighton
North St. Paul
Oakdale
Rosemount
Roseville
St. Paul
Shoreview
South St. Paul
Stillwater
Vadnais Heights
West St. Paul
White Bear Lake
Woodbury

1995 SUBCOMMITTEES

The Screening Board Chairman appoints one city Engineer, who has served on the Screening Board, to serve a three year term on the Needs Study Subcommittee.

The past Chairman of the Screening Board is appointed to serve a three year term on the Unencumbered Construction Fund Subcommittee.

NEEDS STUDY SUBCOMMITTEE	UNENCUMBERED CONSTRUCTION FUNDS SUBCOMMITTEE
Sid Williamson - Chairman Sartell (612) 251-6252 Expires in 1995	Dan Edwards Chairman Fergus Falls (218) 739-2251 Expires in 1995
Bill Ottensmann Coon Rapids (612) 755-2880 Expires in 1996	Alan Gray Eden Prairie (612) 949-8300 Expires in 1996
Herb Reimer Moorhead (218) 299-5390 Expires in 1997	Kenneth Larson Duluth (218) 723-3278 Expires in 1997

ALLOCATION STUDY SUBCOMMITTEE	
Larry Anderson - Prior Lake-Chairman	(612) 447-4230
Gerald Butcher - Maple Grove	(612) 420-4000
Tom Drake - Red Wing	(612) 227-6220
John Flora - Fridley	(612) 571-3450
Ramankutty Kannankutty - Minneapolis	(612) 673-2456
Ken Larson - Duluth	(218) 723-3278
Bill Ottensmann - Coon Rapids	(612) 755-2880
Herb Reimer - Moorhead	(218) 299-5390

MINUTES
FALL MUNICIPAL STATE AID SCREENING COMMITTEE
OCTOBER 25, 1994

I. The 1994 Fall Meeting of the Municipal Screening Board was called to order by Chairman Ken Larson at 1:15 p.m., Tuesday, October 25, 1994, at Izaty's Resort, Isle, Minnesota. Chairman Larson then introduced Vice chairman, Dave Sonnenberg of Minnetonka; Secretary, Dale Swanson of Willmar; Manager of Municipal State Aid Needs Unit, Ken Straus; Chairman of the Needs Study Subcommittee, Ken Haider; and Director of the Division of State Aid, Pat Murphy. Secretary Swanson then called the roll. The following were present:

District 1	Jim Prusak	Cloquet
District 2	Don Boell	Bemidji
District 3	Curt Kreklau	Buffalo
District 4	Herb Reimer	Moorhead
Metro-West	Larry Anderson	Prior Lake
District 6	Arnold Putnam	Owatonna
District 7	Ken Saffert	Mankato
District 8	John Rodeberg	Hutchinson
Metro-East	Brian Bachmeier	Oakdale
1st Class City	Kenneth Larson	Duluth
1st Class City	Ramankutty Kannankutty	Minneapolis
1st Class City	Thomas Kuhfeld	St. Paul

Also present were:

Patrick Murphy - State Aid Engineer
Julie Skallman - Assistant State Aid Engineer
Ken Hoeschen - Manager, County State Aid Needs Unit
Marshall Johnston - Municipal State Aid Needs Unit
Bill Croke - District 1 State Aid Engineer
Luane Tasa - District 2 State Aid Engineer
Mike Tardy - District 3 State Aid Engineer
Tallack Johnson - District 4 State Aid Engineer
Mike Pinsonneault - District 6 State Aid Engineer
Doug Haeder - District 7 State Aid Engineer
Tom Behm - District 8 State Aid Engineer
Bob Brown - Metro Division State Aid Engineer
Dave Kreager - Duluth
Dan Sabin - Minneapolis
Don Aluni - Minneapolis
Paul St. Martin - St. Paul
District 1 Alternate, Dave Halter - Grand Rapids
District 4 Alternate, Gary Nansen - Detroit Lakes
District 6 Alternate, William Malin - Winona
County Screening Board Chair, Dick Hansen - St. Louis County

Chairman Larson asked for approval of the Spring 1994 Screening Board Minutes. Following a short discussion a motion was made by Anderson and seconded by Putnam to approve the 1994 Spring Minutes. The motion passed.

Ken Straus, Manager of the Municipal Needs Unit, summarized the Needs Report. Cloquet had requested a bond account adjustment of $741,417 and Oakdale had also requested a bond account adjustment of $637,892, due to end of the year processing time lags. All reports were submitted on time. A motion was made by Kuhfeld and seconded by Kannankutty to allow bond account adjustments for Cloquet in the amount of $741,417 and for Oakdale in the amount of $673,892. The motion passed, with Prusak and Bachmeier abstaining.

Elk River had requested and received a variance to reconstruct a portion of turnback MSA Street No. 104. They had previously used turnback funds for a thin overlay and had been drawing reconstruction needs. To repay their previous allocation, their 1995 needs should be adjusted downward by $924,521(estimate). A motion was made by Bachmeier and seconded by Saffert to adjust the City of Elk River's needs by a negative $924,521, subject to January, 1995 needs values. The motion passed.

The Administrative and Research Account Histories were reviewed. The legislature has increased the maximum amount which can be set aside for the research account from 1/4% to 1/2% of the preceding year apportionment. After discussion the following resolution was introduced by Kuhfeld and seconded by Rodeberg:

> Be it resolved than an amount of $403,939 (not to exceed 1/2 of 1% of the 1994 M.S.A.S. apportionment sum of $80,787,856) shall be set aside from the 1995 Apportionment Fund and be credited to the research account, and be it further resolved that a representative of the Local Road Research Board be requested to appear before the 1995 board to outline their research program and to recommend the level of next year's set aside for research.

The resolution passed with all members voting aye.

Ken Straus reviewed with the board the intent of the statute which allows County Highways to be turned back to municipalities and placed on the MSA street system including County State Aid Highways and County Roads. After review and discussion the following resolution was introduced by Anderson and seconded by Kuhfeld:

> Be it resolved that any net increase in mileage which is caused by turnbacks or jurisdictional exchanges, including County Highways after May 11, 1994, and designated on the Municipal State Aid Street System in accordance with MSA rules and approved by the Office of State Aid, shall be allowed above the municipality's 20% mileage cap. Exchanges which result in net decreases in mileage shall result in the municipality's mileage in excess of 20% being reduced by a like amount. The amount of excess MSA mileage allowed shall be accumulative of all turnbacks and jurisdictional exchanges, including County Highways after May 11, 1994, but shall never be negative. Excess mileage on the MSA system shall accrue needs in accordance with current rules and resolutions.

The resolution passed with all members voting aye.

A short discussion was held regarding the computation of MSA mileage and now allowing County Roads to be designated as excess mileage. The following revision of the February, 1959 mileage resolution was introduced by Kannankutty and seconded by Bachmeier:

> Be it resolved that the maximum mileage for Municipal State Street designation shall be 20% of the municipality's basic mileage - which is comprised of the total improved streets less Trunk Highways, County State Aid Highways, and any Trunk Highway and/or County Road turnbacks designated as excess MSA mileage.

The resolution passed with all members voting aye.

Using population estimates in determining the population apportionment was reviewed. It has been determined that a statute change is not needed for implementation. After discussion, the following resolution was introduced by Anderson and seconded by Reimer:

> Be it resolved that beginning with calendar year 1996, the MSA population apportionment shall be determined using the latest available federal census or population estimates of the State Demographer and/or the Metropolitan Council. However, no population shall be decreased below that of the latest available federal census, and no city will be added to or dropped from the MSA eligible list based on population estimates.

The resolution passed with all members voting aye.

IV. Bob Brown, Metro Division State Aid Engineer, and Pat Murphy, State Aid Division Director discussed the use of the 5% of the Gas Tax which is taken from the top before state distribution is made. This 5% is up for review by the legislature in its 1995 session. Areas of common interest between Mn/DOT, counties and cities should be included in legislative requests for transportation. Any appropriate action by the Municipal Screening Board should be conveyed to the County Screening Board.

Tom Kuhfeld reviewed the proposed rule change and enabling legislation which would allow counties and cities to utilize advance encumbrances from the respective State Aid Funds. The board discussed briefly possible guidelines for such encumbrances.

Chairman Larson requested a motion by the Screening Board approving the money needs as modified. A motion was made by Kannankutty and seconded by Kreklau for the same. The motion passed.

The survey referred to on page 7 of the Needs Report will be included in the 1995 Apportionment Data Report.

Pat Murphy, State Aid Division Director, addressed the Screening Board on the status of the Rules Committee. It is expected that following the November 10, 1994, committee meeting, a draft will be sent to cities, counties and District State Aid Engineers for their comment.

Mr. Murphy also emphasized the Governor's initiative to promote partnerships, sharing and cooperation between government entities and between public and private organizations. Possible areas of cooperation between Mn/DOT and cities and counties include bridge inspection, pavement management, equipment sharing and maintenance services.

It was also pointed out that a State Aid Division budget is being prepared that will allow more flexibility in the administrative account. This will aid in meeting the ever changing needs of cities and counties and providing the services needed.

Chairman Larson discussed the process whereby a consultant has been contracted (Stgar Roscoe Fausch) through the State Aid Office to evaluate the allocation methodology, determine real and actual municipal needs and determine if there is a more appropriate method of allocation. Mr. Larson recognized Pat Murphy, Julie Skallman and the State Aid Staff for their help and cooperation in meeting and working with the CEAM Executive Committee to initiate this study. Data from all cities will be utilized. Ken Straus indicated his support for an effort to show total needs.

President Larson thanked and recognized the following individuals:

Ken Haider - Chair of the Needs Study Subcommittee
Jim Prusak - Cloquet
Herb Reimer - Moorhead
Arnold Putnam - Owatonna

All are completing their terms.

President Larson also complimented Tom Kuhfeld of St. Paul for his leadership and contribution over the past 8 years. Tom has announced he is stepping aside as St. Paul's representative on the Board. He will be replaced by Paul St. Martin.

eport on the Screening Board strategic planning session, held October 26 and 27, will be ributed at the January 1995 CEAM Annual Meeting.

re being no further business to come before the board, a motion was made by Kannankutty seconded by Putnam to adjourn. Chairman Larson declared the meeting adjourned at 4:45

pectfully submitted:

L. Swanson, P.E.
ening Board Secretary

NEEDS STUDY SUBCOMMITTEE
OF MUNICIPAL STATE AID SCREENING BOARD

MINUTES
APRIL 20, 1995

The meeting of the Needs Study Subcommittee was called to order by Chairman Sid Williamson at 11:10 a.m., Thursday, September 20, 1995 at the Sartell City Hall, Sartell, Minnesota.

Members Present: Mr. Bill Ottensmann, City of Coon Rapids
Mr. Herb Reimer, City of Moorhead

Also Present: Mr. Ken Straus

1. UNIT PRICES

Unit prices were reviewed by the Needs Study Subcommittee and several changes recommended. Factors considered were yearly average, five year average, and district costs.

MOTION MADE BY MR. REIMER, SECONDED BY MR. OTTENSMANN TO RECOMMEND UNIT PRICES FOR 1995 AS INDICATED IN THE ATTACHED SUMMARY. AYES ALL, MOTION CARRIED.

2. BOND ACCOUNT ADJUSTMENT

Mr. Straus raised several questions concerning account adjustments. At the present time when bonds are sold for a particular project, the total cost of the bonds, including bonding company and underwriter fees, are repaid using state aid funds from the city's construction account. The interest on the bonds is paid out of the city's maintenance account. The city thus has to apply other state aid projects in order to cover the cost of the bonding company and underwriter fees. The unpaid principal on the bond issue is applied to the city's needs for the life of the bond issue. As indicated in the attached examples, the longer the period of time the city bonds for, the greater gain in apportionment. Sample "A" in this instance, a twenty year repayment schedule would have $132,300 advantage over sample "B" with a ten year repayment schedule. There are some offsets in the sense that more interest is paid which must be taken out of maintenance accounts, however, it appears a longer payment schedule would be advantageous to a community. The Committee felt there should be a uniform needs adjustment for the bond account. The Committee recommended bonding needs adjustment should be spread over a ten year period with a 10% reduction per year irregardless of the length of the bond issue or the payment schedule.

3. COMBINATION ROUTES

Mr. Straus informed the Committee there are approximately 15.08 miles of roadways within the state with a combined county and Municipal State Aid designation. He recommended every effort be made to remove these combination routes. Mr. Reimer indicated he is looking at adding a section of roadway combined route as a means of financing a part of a bridge project in conjunction with the County project. While Municipal State Aid funds can be used off system on county state aid roads, when this is done, the city does not recover needs on that section of roadway. Under a joint designation, they would recover some needs for the project. Mr. Ottensmann indicated he is also looking at a joint designation as a potential for construction of a County State Aid Highway where the county will not participate in the funding. Where the cities have excess undesignated mileage, it provides a means to designate the mileage as well as drawing the needs which may be lost if the construction took place off system. The Committee felt no change should be made at this time. In addition, it was pointed out that State Statutes allow combined routes and that a change could not be made without changing the Statute.

4. REVIEW OF HOW NEW RULES MAY AFFECT NEEDS RELATIVE TO LANDSCAPING AND SIDEWALKS

Discussion took place relative to adding an apportionment need for landscaping. The Committee felt that the dollar amount of landscaping is going to vary so widely from city to city and section to section of roadway, that establishing a fixed landscaping need would be difficult and not representative and, therefore, recommended no change.

Relative to sidewalks, needs are now drawn on a five foot sidewalk. Some communities are constructing wider sidewalks. Mr. Straus indicated this is typically in a downtown reconstruction area and any construction of sidewalks wider than five feet is not typical. Where bituminous paths are constructed wider than five feet, the present five foot needs unit costs for concrete sidewalk covers the wider cost of blacktop. The Committee recommend no change.

5. SHOULD PRIVATE STREETS BE CONSIDERED AS LOCAL STREET MILEAGE FOR MILEAGE CERTIFICATION ?

The Committee felt that as the community has no responsibility for maintenance, and as the roadways are generally not constructed to typical city standards, private streets should not be included on the certification mileage.

6. COUNTY TURN-BACKS

Mr. Straus questioned whether county roads presently designated as MSAS routes should be considered as turn-backs when they are reverted to the city. The Committee felt that as these roads are presently on the Municipal State Aid system, there was no reason to consider them as turn-backs allowing mileage in excess of the city's 20%.

Should CSAH non-existing mileage be considered turn-back mileage above the city's 20%. In this particular instance, we are speaking of a designated CSAH roadway that is non-existent that might be turned back to a city. The Committee felt that as the roadway was strictly on paper, the turn-back mileage should not be added above the city's 20%.

7. TIMING OF COUNTY ROAD TURN-BACKS

In an instance where a city has designated their full 20% MSA allotment, and a county road is turned back to the city, the basis for the 20% mileage is reduced, i.e. one mile of county road turn-back reduces the mileage available for designation as a MSA route by 2/10 of a mile, and while the entire mile of county road could be designated as excess mileage, the city would be 2/10 of a mile in excess overall. There are no statutory provisions for exceeding the 20%. The Committee therefore recommended that the community would either have to reduce some MSA route by the shortfall or the mileage of turn-back would have to be reduced by the shortfall or the full mileage turn-back designated but needs carried as a percentage of the total based upon the shortfall.

8. METRICATION

The question was when should metrication be included in the unit prices and the calculation for Municipal State Aid allocation? Metrication of all state plans is proposed to take place in two years. The Committee recommended that the staff provide direction on when and how they wish to make the switch.

9. STRGAR-ROSCOE-FAUSCH, INC. STUDY

The study deals with pavement life cycles and the question was whether the life cycle should be considered as a means of allocation of MSA funds. The Committee felt further study was necessary and took no action.

10. UNIT PRICE DETERMINATIONS

Presently the background information which is used to determine unit prices only includes those portions of contracts applicable to MSA projects. Contracts frequently cover non-MSA eligible construction. It was felt that including both the non-eligible and MSA eligible unit prices, would provide a better indication of actual construction costs and a better basis of recommending unit prices. The Committee recommended that the total bid be included in providing background information upon which unit price recommendations are made.

11. TRUNK HIGHWAY TURN-BACKS

In this example, a county road is turned back to the city. The city thus loses county road mileage as a basis for its 20% and, assuming they want to put it on the Municipal State Aid system, must use some of the available mileage to designate the route. They lose the available mileage on one end and must expend the available mileage on the other end. The question raised was should the city be allowed to exceed the recalculated 20%? The Committee felt the Statutes would not allow exceeding 20% and, therefore, could not put the turn-back trunk highway on the MSA system until such time as they accumulated sufficient miles to do so.

In this example, a city has an even 1 mile exchange of a former trunk highway for a CSAH with the County. The city is carrying the trunk highway mileage above 20% and is getting mileage that will not be above 20%. In order for the city to designate the former CSAH as a MSAS route, the city will be required to lose the 1 mile of trunk highway turn-back and would be required to use .8 mile from the basic mileage. The exchange designation would require the city to use 1.8 miles to designate 1 mile.

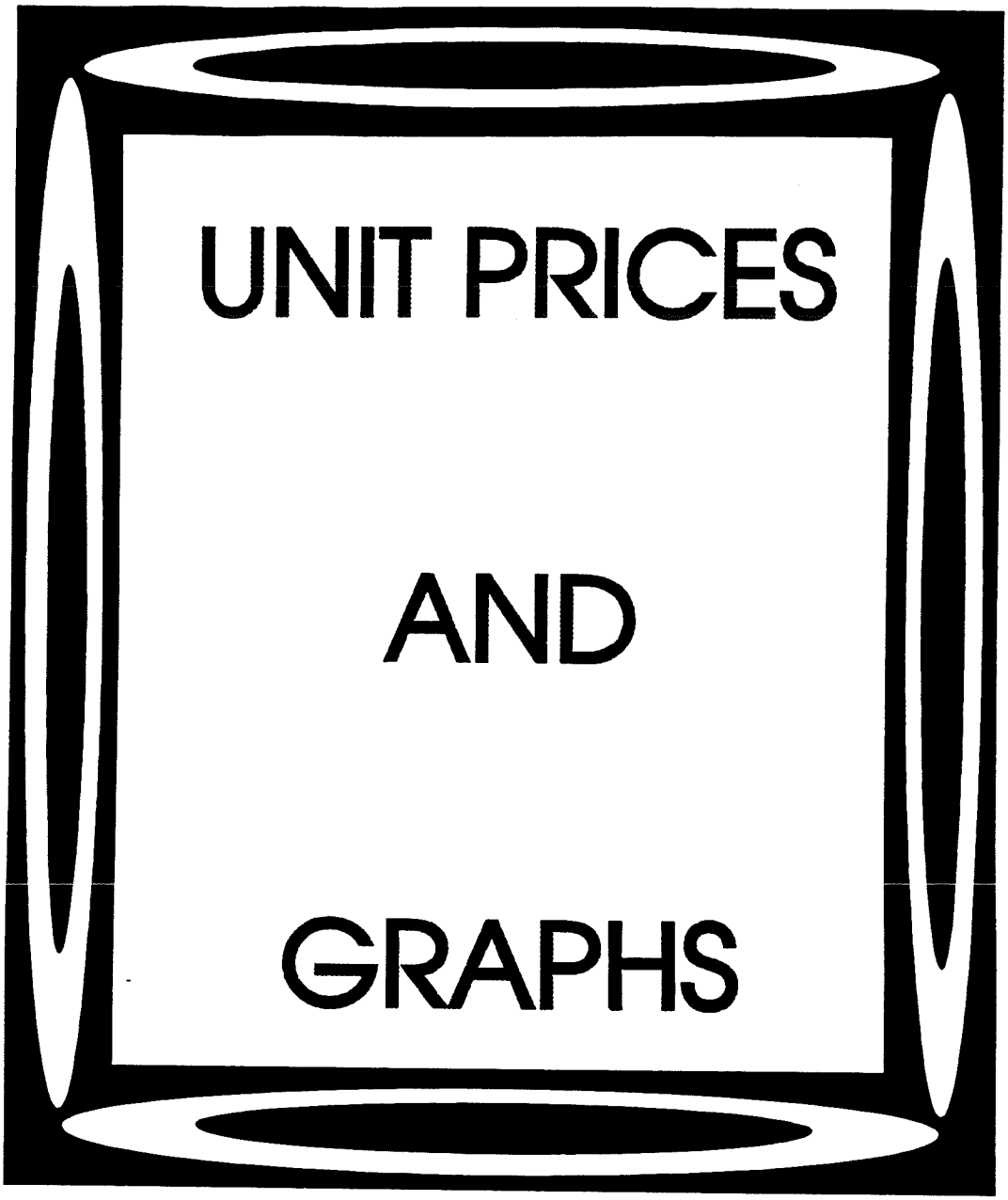
The Committee felt the Statutes would not allow exceeding 20% and, therefore, could not designate the former CSAH on the MSA system until such time they accumulated sufficient mileage or revoked additional mileage.

12. ADJOURNMENT

MOTION MADE BY MR. REIMER, SECONDED BY MR. OTTENSMANN TO ADJOURN THE MEETING. THE MEETING WAS ADJOURNED AT 3:05 P.M.

1995 UNIT PRICE RECOMMENDATIONS

Needs Item		1994 Need Prices	Sub-committee Suggested Prices For 1995	Screening Board Recommended Prices For 1995
Grading (Excavation)	Cu. Yd.	$3.00	$3.00	
Aggregate Shoulders #2221	Ton	7.00	8.00	
Curb and Gutter Removal	Lin.Ft.	1.60	1.70	
Sidewalk Removal	Sq. Yd.	4.50	4.70	
Concrete Pavement Removal	Sq. Yd.	4.00	4.10	
Tree Removal	Unit	175.00	175.00	
Class 4 Subbase #2211	Ton	4.50	4.70	
Class 5 Base #2211	Ton	6.00	6.00	
Bituminous Base #2331	Ton	21.00	20.00	
Bituminous Surface #2331	Ton	21.00	20.00	
Bituminous Surface #2341	Ton	23.50	23.50	
Bituminous Surface #2361	Ton	30.00	30.00	
Curb and Gutter Construction	Lin.Ft.	5.50	5.75	
Sidewalk Construction	Sq. Yd.	16.00	16.00	
Storm Sewer Adjustment	Mile	67,100	69,100	
Storm Sewer	Mile	216,500	223,000	
Special Drainage - Rural	Mile	26,000	26,000	
Street Lighting	Mile	20,000	20,000	
Traffic Signals	Per Sig	80,000	80,000	
Signal Needs Based On Projected Traffic				
Projected Traffic Percentage X Unit Price = Needs Per Mile				
0 - 4,999 .25		$80,000 = $20,000		
5,000 - 9,999 .50		80,000 = 40,000		
10,000 & Over 1.00		80,000 = 80,000		
Right of Way (Needs Only)	Acre	60,000	60,000	
Engineering	Percent	18	18	
Railroad Grade Crossing				
Signs	Unit	800	800	
Pavement Marking	Unit	750	750	
Signals (Single Track-Low Speed)	Unit	80,000	80,000	
Signals & Gate (Multiple Track - High & Low Speed)	Unit	110,000	110,000	
Rubberized Material(Per Track)	Lin.Ft.	750	750	
Bridges				
0 to 149 Ft.	Sq. Ft.	55.00	55.00	
150 to 499 Ft.	Sq. Ft.	55.00	55.00	
500 Ft. and over	Sq. Ft.	55.00	55.00	
Railroad Bridges over Highways				
Number of Tracks - 1	Lin.Ft.	5,000	5,000	
Additional Track (each)	Lin.Ft.	4,000	4,000	


UNIT PRICES
AND
GRAPHS

NOTES

UNIT PRICE STUDY

The Unit Price Study is done annually by the State Aid Needs Unit by compiling the quantities and unit prices of items from the prior years urban municipalities' Abstract of Bids received in the State Aid Office. The results were obtained from the 1994 bids and are found next to the applicable graphs. These averages and past averages are used by the Needs Study Subcommittee and the Municipal Screening Board to determine the prices to be used in the 1995 Needs Study. These prices are then applied against the quantity table located in the State Aid Manual Fig. D & F 5-892.810 to compute the needs of each segment. The needs eventually will be used to compute the 1996 money needs allocation.

Both MN/DOT and State Aid bridges are used so that more bridges determine the unit price. Generally, State Aid contracts do not include many bridges 150 feet long or over. The bridge costs do not include bridge removal and approach panels.

MN/DOT's hydraulic office furnished a recommendation of costs for storm sewer construction and adjustment based on 1994 construction costs.

MN/DOT railroad office furnished a letter detailing railroad cost from 1994 construction projects.

Due to the lack of data, a study is not done for traffic signals, special drainage, maintenance, lighting and engineering. Every segment, except those eligible for Turnback Funding, receive needs for traffic signals, lighting, engineering, and maintenance. All the past year's need prices are found in the Screening Board's resolutions included in this booklet.

M.S.A.S. UNIT PRICE STUDY
EXCAVATION - CUBIC YARD

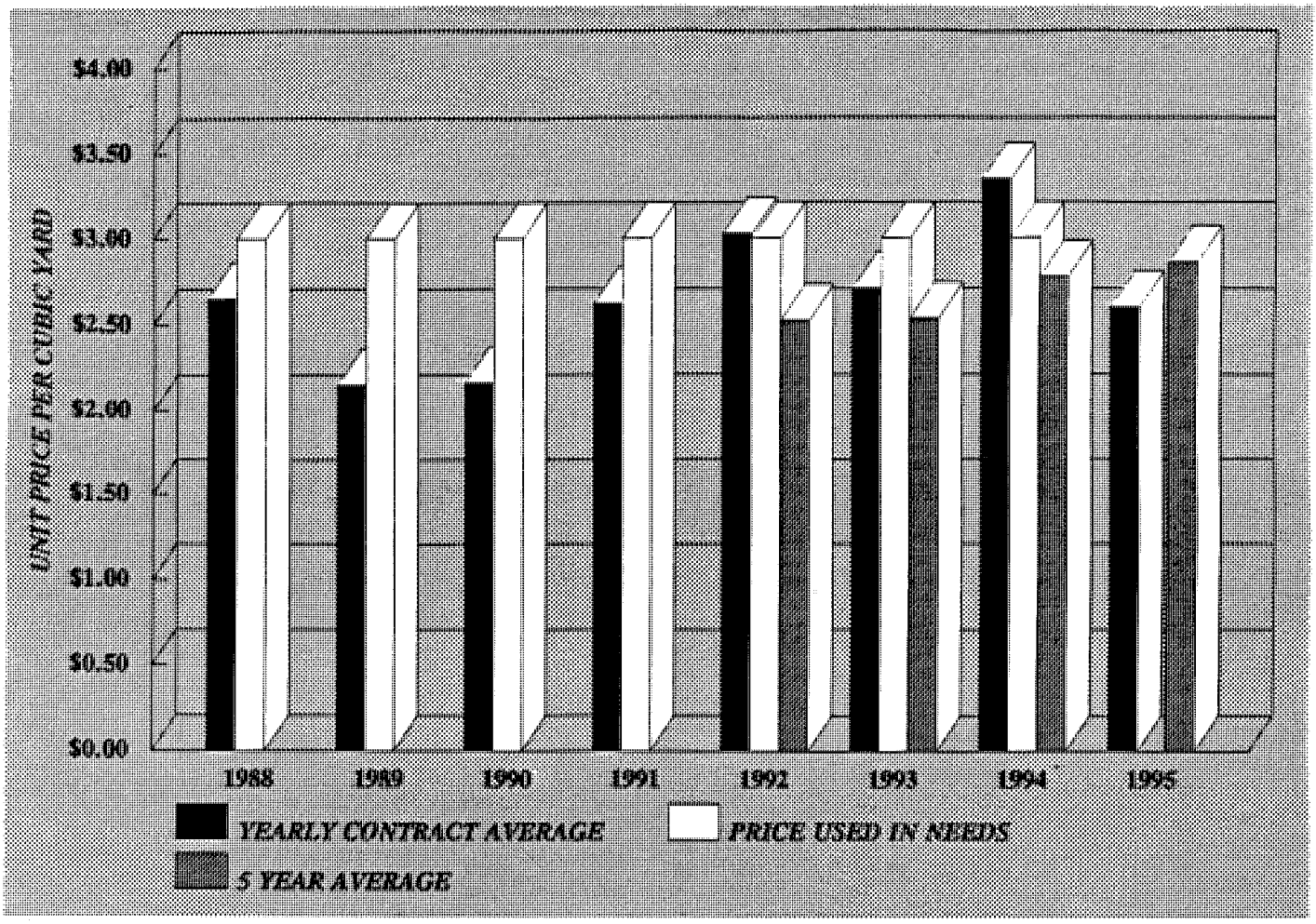
MUNICIPALITY	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL COST	AVERAGE UNIT PRICE
		DISTRICT 1		
CHISHOLM	1	1306	5224	$4.00
CLOQUET	2	6,490	23,364	3.60
HIBBING	3	11,902	42,755	3.59
HERMANTOWN	1	23,305	83,300	3.57
INTERNATIONAL FALLS	4	5,500	30,252	5.50
DISTRICT TOTAL	**11**	**48,503**	**$184,895**	**$3.81**
		DISTRICT 2		
CROOKSTON	3	6,445	$25,780	$4.00
THIEF RIVER FALLS	3	13,534	47,369	3.50
DISTRICT TOTAL	**6**	**19,979**	**$73,149**	**$3.66**
		DISTRICT 3		
BRAINERD	2	7,625	$17,280	$2.27
CAMBRIDGE	3	18,585	76,436	4.11
ELK RIVER	2	19,385	40,627	2.10
OTSEGO	1	4,500	8,505	1.89
ST. CLOUD	4	6,968	29,653	4.26
SAUK RAPIDS	1	10,820	52,555	4.86
DISTRICT TOTAL	**13**	**67,883**	**$225,056**	**$3.32**
		DISTRICT 4		
ALEXANDRIA	1	13,608	$54,432	$4.00
DISTRICT TOTAL	**1**	**13,608**	**$54,432**	**$4.00**
		METRO WEST		
ANDOVER	2	23,086	$47,757	$2.07
BLAINE	1	24,187	50,793	2.10
BLOOMINGTON	1	9,930	40,713	4.10
BROOKLYN PARK	4	79,785	270,247	3.39
CHASKA	2	94,151	98,580	1.05
COON RAPIDS	2	54,210	124,005	2.29
CORCORAN	1	16,100	68,425	4.25
EAST BETHEL	1	13,068	30,056	2.30
FRIDLEY	1	5,745	16,661	2.90
GOLDEN VALLEY	2	14,637	92,626	6.33
HAM LAKE	2	39,656	75,332	1.90
LINO LAKES	1	2,420	3,122	1.29
MAPLE GROVE	2	10,200	66,860	6.55
MINNEAPOLIS	8	23,508	168,369	7.16
MINNETONKA	3	29,077	137,123	4.72
ORONO	3	15,350	52,150	3.40
PLYMOUTH	2	4,760	16,392	3.44
PRIOR LAKE	1	46,165	41,549	0.90
RICHFIELD	1	90,898	286,329	3.15
SHAKOPEE	1	17,400	34,800	2.00
SHOREWOOD	1	252	2,520	10.00
DISTRICT TOTAL	**42**	**614,585**	**$1,724,409**	**$2.81**

M.S.A.S. UNIT PRICE STUDY
EXCAVATION - CUBIC YARD

MUNICIPALITY	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL COST	AVERAGE UNIT PRICE
		DISTRICT 6		
ALBERT LEA	1	51,356	$81,142	$1.58
AUSTIN	2	6,100	21,160	3.47
FAIRBAULT	1	235	1,058	4.50
NORTHFIELD	1	5,077	14,520	2.86
OWATONNA	1	1,144	4,462	3.90
ROCHESTER	1	103	515	5.00
WINONA	1	8,456	38,898	4.60
DISTRICT TOTAL	**8**	**72,471**	**$161,755**	**$2.23**
		DISTRICT 7		
FAIRMONT	3	21,804	$82,444	$3.78
MANKATO	1	17,782	106,692	6.00
ST. PETER	1	16,500	27,225	1.65
DISTRICT TOTAL	**5**	**56,086**	**$216,361**	**$3.86**
		DISTRICT 8		
HUTCHINSON	2	3,790	$13,265	$3.50
DISTRICT TOTAL	**2**	**3,790**	**$13,265**	**$3.50**
		METRO EAST		
APPLE VALLEY	3	182,816	$182,695	$1.00
COTTAGE GROVE	1	11,200	112	0.01
EAGAN	1	19,825	80,025	4.04
INVER GROVE HEIGHTS	2	14792	17932	1.21
LAKEVILLE	1	60,989	128,959	2.11
MOUNDS VIEW	1	5,744	16,658	2.90
OAKDALE	1	16,497	77,243	4.68
ROSEVILLE	1	12,846	52,372	4.08
ST. PAUL	3	14,260	57,768	4.05
SHOREVIEW	2	15,103	38,144	2.53
STILLWATER	2	2,861	9,441	3.30
WEST ST. PAUL	1	3,449	14,851	4.31
WHITE BEAR LAKE	4	2,030	10,117	4.98
WOODBURY	2	58,490	80,230	1.37
DISTRICT TOTAL	**25**	**420,902**	**$766,547**	**$1.82**

		DISTRICT TOTALS		
DISTRICT 1	11	48,503	$184,895	$3.81
DISTRICT 2	6	19,979	73,149	3.66
DISTRICT 3	13	67,883	225,056	3.32
DISTRICT 4	1	13,608	54,432	4.00
METRO WEST	42	614,585	1,724,409	2.81
DISTRICT 6	8	72,471	161,755	2.23
DISTRICT 7	5	56,086	216,361	3.86
DISTRICT 8	2	3,790	13,265	3.50
METRO EAST	25	420,902	766,547	1.82
STATE TOTAL	**113**	**1,317,807**	**$3,419,869**	**$2.60**

EXCAVATION



NEEDS YEAR	NO. OF CITIES	QUANTITY	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5 YEAR AVERAGE CONTRACT PRICE
1988	62	796,486	$2,113,700	$2.65	$3.00	
1989	70	1,406,108	3,024,233	2.15	3.00	
1990	65	1,263,652	2,733,063	2.16	3.00	
1991	67	1,260,768	3,303,493	2.62	3.00	
1992	70	1,243,656	3,764,822	3.03	3.00	$2.52
1993	64	1,105,710	2,994,010	2.71	3.00	2.53
1994	65	1,484,328	4,965,339	3.35	3.00	2.77
1995	59	1,317,807	3,419,869	2.60		2.86

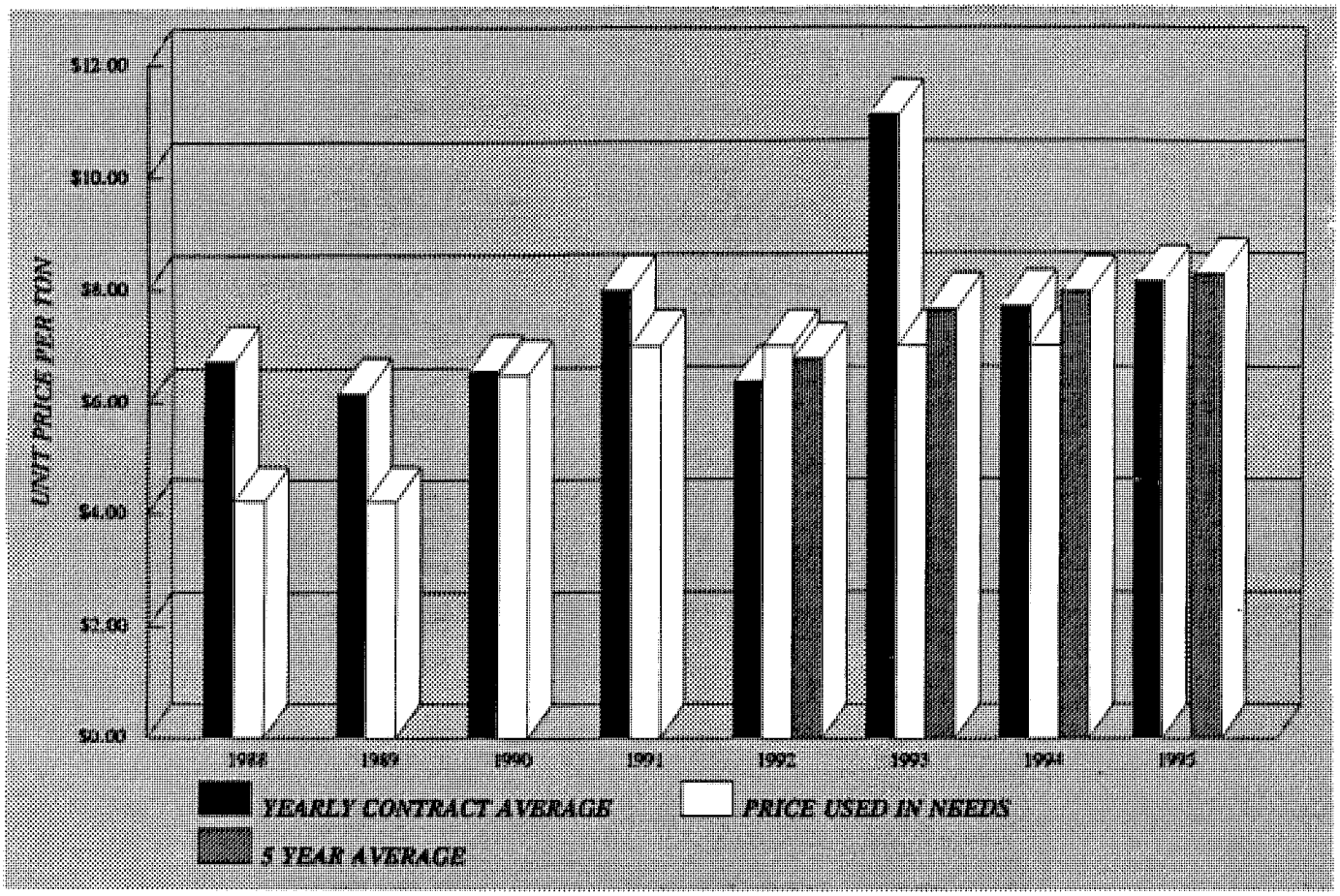
SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 1995 NEEDS STUDY IS PER CU. YD. $3.00

M.S.A.S. UNIT PRICE STUDY
AGGREGATE SHOULDERS - TON

MUNICIPALITY	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL COST	AVERAGE UNIT PRICE
		METRO WEST		
ANDOVER	1	6	$60	$10.00
FRIDLEY	1	38	280	7.37
ORONO	1	130	1,300	10.00
PLYMOUTH	1	960	7,872	8.20
DISTRICT TOTAL	**4**	**1,134**	**$9,512**	**$8.39**
		DISTRICT 6		
ALBERT LEA	1	960	$7,872	$8.20
DISTRICT TOTAL	**1**	**960**	**$7,872**	**$8.20**
		METRO EAST		
LAKEVILLE		11	$105	$9.55
MOUNDS VIEW	1	38	280	7.37
WOODBURY	1	2,780	22,240	8.00
DISTRICT TOTAL	**3**	**2,829**	**$22,625**	**$8.00**

		DISTRICT TOTALS		
DISTRICT 1	0	0	$0	$0.00
DISTRICT 2	0	0	0	0.00
DISTRICT 3	0	0	0	0.00
DISTRICT 4	0	0	0	0.00
METRO-WEST	4	1,134	9,512	8.39
DISTRICT 6	1	960	7,872	8.20
DISTRICT 7	0	0	0	0.00
DISTRICT 8	0	0	0	0.00
METRO-EAST	3	2,829	22,625	8.00
STATE TOTAL	**8**	**4,923**	**$40,009**	**$8.13**

AGGREGATE SHOULDERING



NEEDS YEAR	NO. OF CITIES	QUANTITY	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5 YEAR AVERAGE CONTRACT PRICE
1988	4	1,247	$8,437	$6.77	$4.25	
1989	7	3,485	21,554	6.18	4.25	
1990	6	3,714	24,444	6.58	6.50	
1991	3	2,334	18,624	7.98	7.00	
1992	7	6,285	39,992	6.36	7.00	$6.77
1993	7	803	9,423	11.09	7.00	7.64
1994	4	999	7,691	7.70	7.00	7.94
1995	8	4,923	40,009	8.13		8.25

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 1995 NEEDS STUDY IS PER TON. **$8.00**

M.S.A.S. UNIT PRICE STUDY
CURB AND GUTTER REMOVAL - LINEAR FEET

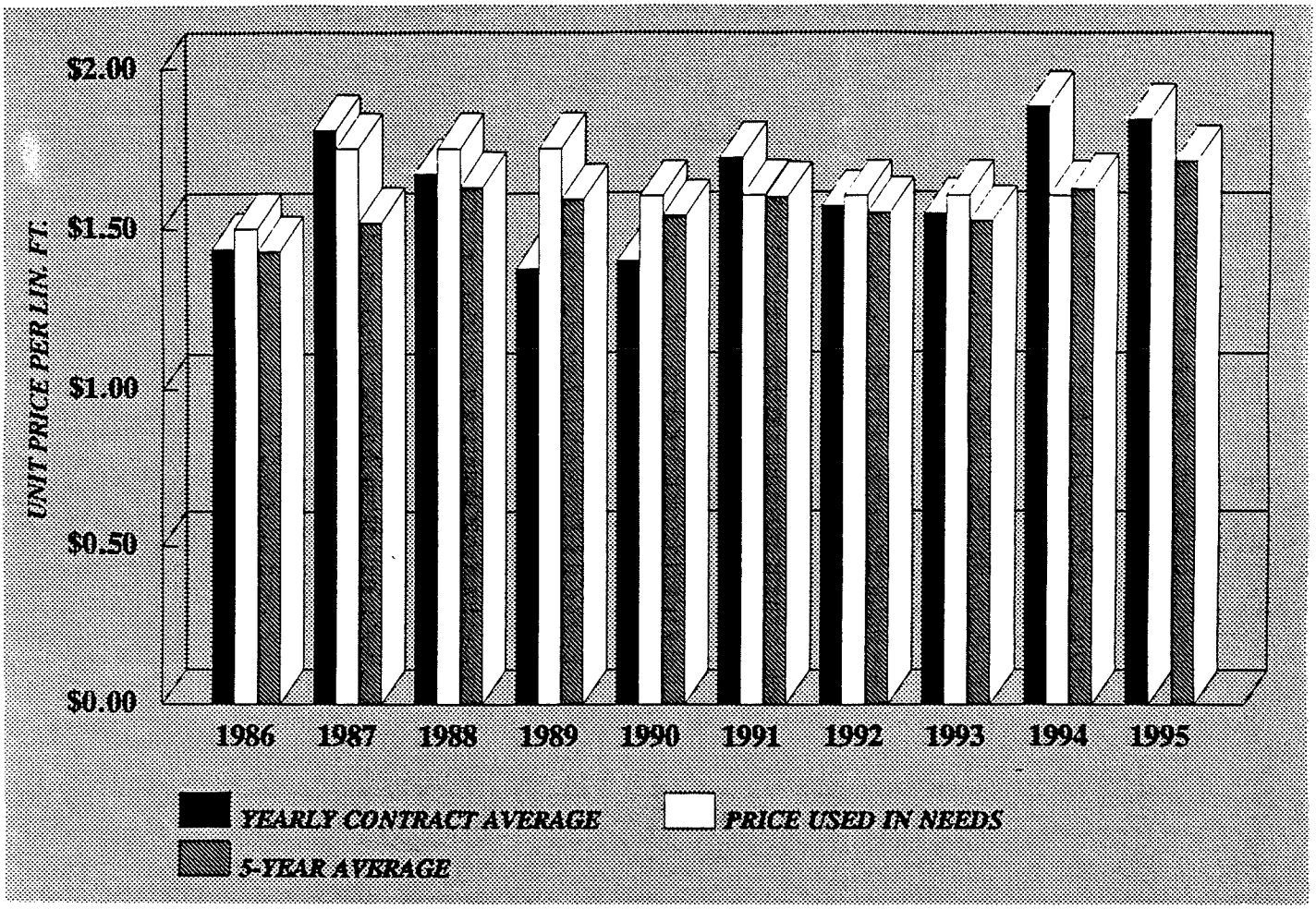
MUNICIPALITY	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL COST	AVERAGE UNIT PRICE
		DISTRICT 1		
CLOQUET	2	3,568	$3,568	$1.00
HIBBING	3	17,206	33,515	1.95
INTERNATIONAL FALLS	4	46	135	2.93
DISTRICT TOTAL	**9**	**20,820**	**$37,218**	**$1.79**
		DISTRICT 2		
CROOKSTON	6	1,901	$3,691	$1.94
THIEF RIVER FALLS	3	5,126	10,252	2.00
DISTRICT TOTAL	**9**	**7,027**	**$13,943**	**$1.98**
		DISTRICT 3		
BRAINERD	2	1567	$1,411	$0.90
CAMBRIDGE	2	3,610	5455	1.51
ELK RIVER	2	7,450	7,450	1.00
ST. CLOUD	1	60	252	4.20
SAUK RAPIDS	1	4,580	4,580	1.00
DISTRICT TOTAL	**8**	**17,267**	**$19,148**	**$1.11**
		DISTRICT 4		
ALEXANDRIA	1	95	$190	$2.00
FERGUS FALLS	1	217	543	2.50
MOORHEAD	4	1,900	4,600	2.42
DISTRICT TOTAL	**6**	**2,212**	**$5,333**	**$2.41**
		METRO WEST		
ANDOVER	1	211	$591	$2.80
BLOOMINGTON	1	4,318	7,341	1.70
BROOKLYN PARK	6	21,063	27,182	1.29
COON RAPIDS	1	100	400	4.00
FRIDLEY	1	40	160	4.00
GOLDEN VALLEY	2	314	973	3.10
MAPLE GROVE	2	874	2,172	2.49
MINNEAPOLIS	10	51,443	102,138	1.99
MINNETONKA	2	1,500	2,390	1.59
NEW HOPE	1	15	45	3.00
RICHFIELD	1	15,415	30,830	2.00
ST. LOUIS PARK	1	150	1,500	10.00
SHOREWOOD	1	220	1,100	5.00
DISTRICT TOTAL	**30**	**95,663**	**$176,822**	**$1.85**

M.S.A.S. UNIT PRICE STUDY
CURB AND GUTTER REMOVAL - LINEAR FEET

MUNICIPALITY	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL COST	AVERAGE UNIT PRICE
		DISTRICT 6		
ALBERT LEA	4	2,180	$8,625	$3.96
AUSTIN	3	440	2,962	6.73
FARIBAULT	1	541	1,082	2.00
NORTHFIELD	1	2,497	3,246	1.30
OWATONNA	1	1,500	3,750	2.50
ROCHESTER	2	611	3,562	5.83
WINONA	1	3,983	7,169	1.80
DISTRICT TOTAL	**13**	**11,752**	**$30,396**	**$2.59**
		DISTRICT 7		
FAIRMONT	3	13,589	$27,692	$2.04
MANKATO	1	1,704	2,556	1.50
ST. PETER	1	326	815	2.50
DISTRICT TOTAL	**5**	**15,619**	**$31,063**	**$1.99**
		DISTRICT 8		
HUTCHINSON	3	678	2,373	$3.50
WILLMAR	1	1,470	4,763	3.24
DISTRICT TOTAL	**4**	**2,148**	**$7,136**	**$3.32**
		METRO EAST		
APPLE VALLEY	2	12,830	$25,778	$2.01
COTTAGE GROVE	1	800	3,200	4.00
EAGAN	1	4,000	9,220	2.31
HASTINGS	1	1,205	3,615	3.00
LAKEVILLE	1	220	660	3.00
OAKDALE	1	280	420	1.50
ROSEVILLE	3	1,210	2,531	2.09
ST. PAUL	2	13,039	13,900	1.07
SHOREVIEW	1	150	300	2.00
SOUTH ST. PAUL	1	835	1,253	1.50
STILLWATER	1	40	60	1.50
WEST ST. PAUL	1	1,910	1,433	0.75
WOODBURY	1	150	600	4.00
DISTRICT TOTAL	**17**	**36,669**	**$62,970**	**$1.72**

		DISTRICT TOTALS		
DISTRICT 1	9	20,820	$37,218	$1.79
DISTRICT 2	9	7,027	13,943	1.98
DISTRICT 3	8	17,267	19,148	1.11
DISTRICT 4	6	2,212	5,333	2.41
METRO WEST	30	95,663	176,822	1.85
DISTRICT 6	13	11,752	30,396	2.59
DISTRICT 7	5	15,619	31,063	1.99
DISTRICT 8	4	2,148	7,136	3.32
METRO EAST	17	36,669	62,970	1.72
STATE TOTAL	**101**	**209,177**	**$384,029**	**$1.84**

CURB & GUTTER REMOVAL #2104



NEEDS YEAR	NO. OF CITIES	QUANTITY	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5-YEAR AVERAGE CONTRACT PRICE
1986	50	145,294	208,971	1.44	1.50	1.43
1987	46	119,913	216,648	1.81	1.75	1.52
1988	35	83,232	139,029	1.67	1.75	1.63
1989	64	211,446	290,721	1.37	1.75	1.59
1990	38	215,935	301,389	1.40	1.60	1.54
1991	59	207,105	355,996	1.72	1.60	1.59
1992	58	152,992	239,845	1.57	1.60	1.55
1993	56	118,793	183,378	1.54	1.60	1.52
1994	59	309,891	581,256	1.88	1.60	1.62
1995	51	209,177	384,029	1.84		1.71

IBCOMMITTEE'S RECOMMENDED PRICE FOR THE 1995 NEEDS STUDY IS R LIN. FT. **$1.70**

M.S.A.S. UNIT PRICE STUDY
SIDEWALK REMOVAL - SQUARE YARD

(Two decimal places was used in the quantity column so the conversion from Sq. Ft. to Sq. Yds. would be more accurate.)

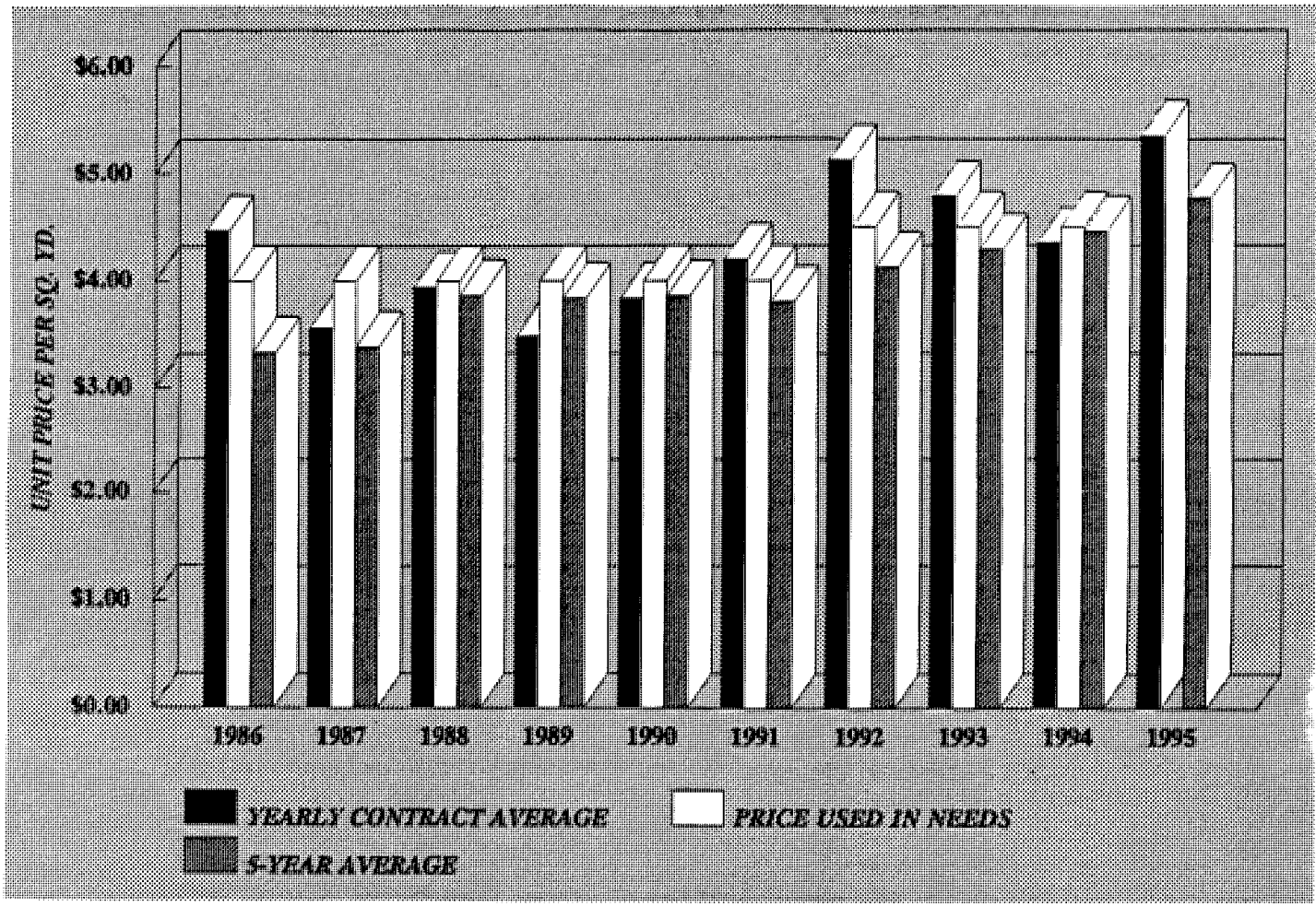
MUNICIPALITY	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL COST	AVERAGE UNIT PRICE
		DISTRICT 1		
CLOQUET	2	1,654.55	$5,956	$3.60
HIBBING	3	15,923.99	107,388	6.74
INTERNATIONAL FALLS	4	290.24	1,696	5.84
DISTRICT TOTAL	**9**	**17,868.78**	**$115,040**	**$6.44**
		DISTRICT 2		
CROOKSTON	3	2,652.89	$26,264	$9.90
THIEF RIVER FALLS	3	5,022.00	31,639	6.30
DISTRICT TOTAL	**6**	**7,674.89**	**$57,903**	**$7.54**
		DISTRICT 3		
BRAINERD	2	405.89	$1,461	$3.60
CAMBRIDGE	2	375.00	6,750	18.00
ELK RIVER	2	2,512.78	4,975	1.98
SAUK RAPIDS	1	68.44	308	4.50
DISTRICT TOTAL	**7**	**2,956.22**	**$12,033**	**$4.07**
		DISTRICT 4		
MOORHEAD	2	411.11	$1,940	$4.72
DISTRICT TOTAL	**2**	**411.11**	**$1,940**	**$4.72**
		METRO WEST		
BROOKLYN PARK	5	2,360.00	$9,233	$3.91
GOLDEN VALLEY	1	149.00	845	5.67
MINNEAPOLIS	9	27,802.89	130,683	4.70
MINNETONKA	1	38.89	175	4.50
NEW HOPE	4	555.55	2,210	3.98
RICHFIELD	1	2,982.00	8,946	3.00
DISTRICT TOTAL	**21**	**33,888.33**	**$152,092**	**$4.49**
		DISTRICT 6		
ALBERT LEA	3	714.56	$4,416	$6.18
AUSTIN	3	2,212.78	5,064	2.29
FARIBAULT	1	53.44	241	4.51
NORTHFIELD	1	1,691.44	13,396	7.92
OWATONNA	1	761.00	1,712	2.25
ROCHESTER	1	38.67	174	4.50
DISTRICT TOTAL	**10**	**5,471.89**	**$25,003**	**$4.57**

M.S.A.S. UNIT PRICE STUDY
SIDEWALK REMOVAL - SQUARE YARD

MUNICIPALITY	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL COST	AVERAGE UNIT PRICE
		DISTRICT 7		
FAIRMONT	3	2,150.44	$18,215	$8.47
MANKATO	1	640.00	3,456	5.40
ST. PETER	1	29.89	135	4.52
DISTRICT TOTAL	**5**	**2,820.33**	**$21,806**	**$7.73**
		DISTRICT 8		
HUTCHINSON	1	36.11	$163	$4.51
DISTRICT TOTAL	**1**	**36.11**	**$163**	**$4.51**
		METRO EAST		
EAGAN	1	360	$540	$1.50
HASTINGS	1	380.00	570	1.50
ROSEVILLE	1	61.11	550	9.00
ST. PAUL	3	713.00	2,862	4.01
SOUTH ST. PAUL	1	214.44	830	3.87
STILLWATER	3	70.55	291	4.12
WEST ST. PAUL	1	57	214	3.75
WHITE BEAR LAKE	1	188.00	564	3.00
DISTRICT TOTAL	**12**	**2,044.10**	**$6,421**	**$3.14**

		DISTRICT TOTALS		
DISTRICT 1	9	17,868.78	$115,040	$6.44
DISTRICT 2	6	7,674.89	57,903	7.54
DISTRICT 3	7	2,956.22	12,033	4.07
DISTRICT 4	2	411.11	1,940	4.72
METRO WEST	21	33,888.33	152,092	4.49
DISTRICT 6	10	5,471.89	25,003	4.57
DISTRICT 7	5	2,820.33	21,806	7.73
DISTRICT 8	1	36.11	163	4.51
METRO EAST	12	2,044.10	6,421	3.14
STATE TOTAL	**73**	**73,171.76**	**$392,401**	**$5.36**

SIDEWALK REMOVAL #2105



NEEDS YEAR	NO. OF CITIES	QUANTITY	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5-YEAR AVERAGE CONTRACT PRICE
1986	38	56,873	254,161	4.47	4.00	3.34
1987	38	44,695	159,347	3.57	4.00	3.39
1988	25	35,889	141,549	3.94	4.00	3.87
1989	46	77,633	270,831	3.49	4.00	3.84
1990	41	50,017	192,021	3.84	4.00	3.86
1991	43	71,868	301,912	4.20	4.00	3.81
1992	45	57,606	295,735	5.13	4.50	4.12
1993	40	43,017	206,147	4.79	4.50	4.29
1994	39	54,206	235,995	4.35	4.50	4.46
1995	34	73,172	392,401	5.36		4.77

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 1995 NEEDS STUDY IS PER SQ. YD. **$4.70**

M.S.A.S. UNIT PRICE STUDY

CONCRETE PAVEMENT REMOVAL - SQUARE YARD

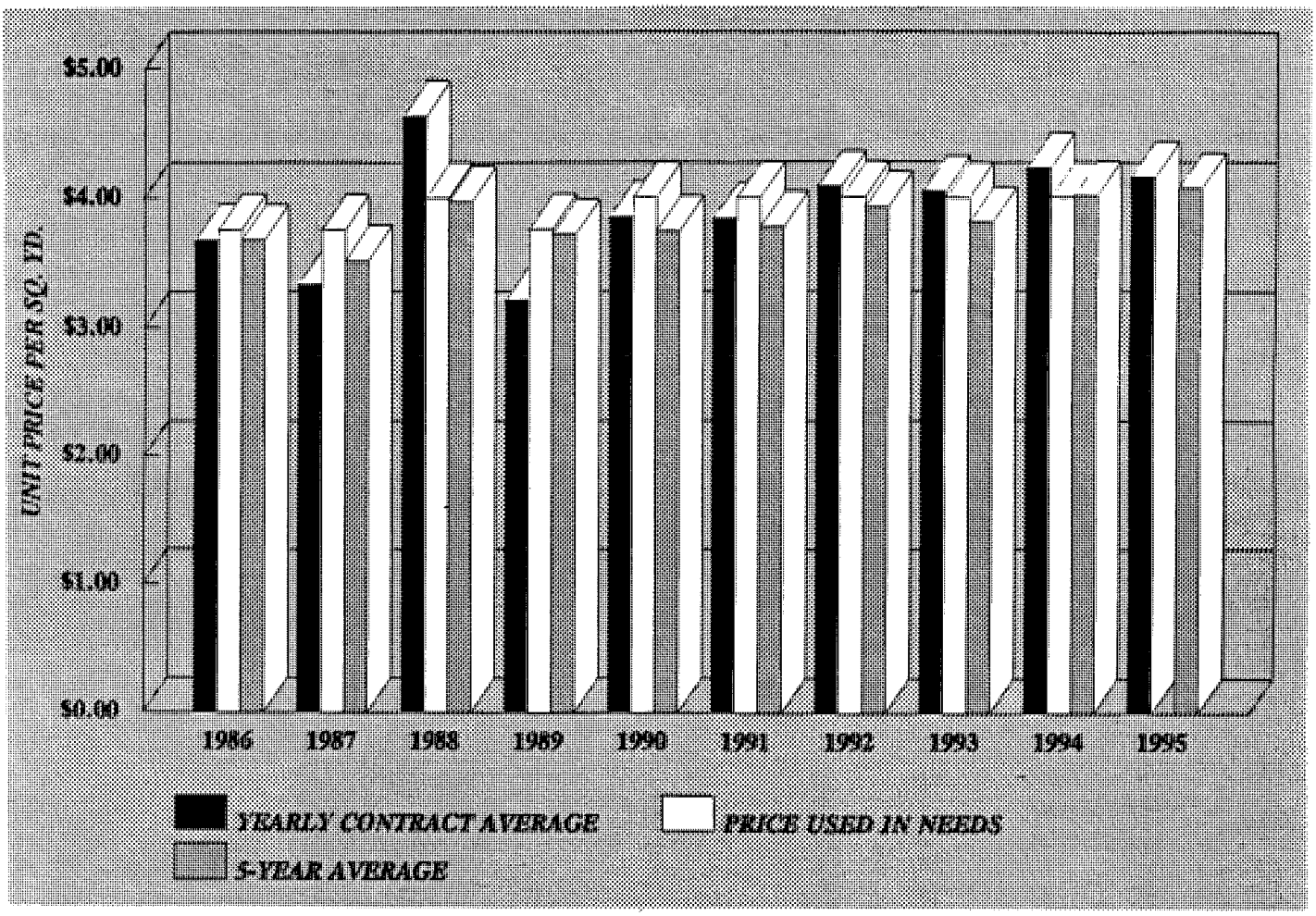
MUNICIPALITY	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL COST	AVERAGE UNIT PRICE
		DISTRICT 1		
CLOQUET	2	584	$2,920	$5.00
HIBBING	2	1,988	10,934	5.50
DISTRICT TOTAL	**4**	**2,572**	**13,854**	**$5.39**
		DISTRICT 2		
CROOKSTON	3	822	$4,928	$6.00
THIEF RIVER FALLS	3	15,773	86,753	5.50
DISTRICT TOTAL	**6**	**16,595**	**$91,681**	**$5.52**
		DISTRICT 3		
BRAINERD	1	183	$531	$2.90
CAMBRIDGE	1	70	280	4.00
ELK RIVER	1	53	212	4.00
SAUK RAPIDS	1	522	1,826	3.50
DISTRICT TOTAL	**4**	**828**	**$2,849**	**$3.44**
		DISTRICT 4		
MOORHEAD	1	40	$260	$6.50
DISTRICT TOTAL	**1**	**40**	**$260**	**$6.50**
		METRO WEST		
ANDOVER	1	79	$474	$6.00
BROOKLYN PARK	1	416	2,081	5.00
FRIDLEY	1	51	204	4.00
MINNEAPOLIS	4	8,426	54,368	6.45
MINNETONKA	2	233	988	4.24
RICHFIELD	1	1,306	3,918	3.00
DISTRICT TOTAL	**10**	**10,511**	**$62,033**	**$5.90**
		DISTRICT 6		
ALBERT LEA	1	82	$625	$7.65
AUSTIN	2	14,760	37,893	2.57
ROCHESTER	1	108	1,296	12.00
DISTRICT TOTAL	**4**	**14,950**	**$39,814**	**$2.66**
		DISTRICT 7		
FAIRMONT	2	7,189	$32,651	$4.54
MANKATO	1	299	1,794	6.00
ST. PETER	1	139	3,750	27.00
DISTRICT TOTAL	**4**	**7,627**	**$38,195**	**$5.01**
		DISTRICT 8		
DISTRICT TOTAL	**0**	**0**	**$0**	**$0.00**

M.S.A.S. UNIT PRICE STUDY
CONCRETE PAVEMENT REMOVAL - SQUARE YARD

MUNICIPALITY	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL COST	AVERAGE UNIT PRICE
		METRO EAST		
OAKDALE	1	120	$600	$5.00
ROSEVILLE	1	200	800	4.00
ST. PAUL	3	26,701	81,610	3.06
STILLWATER	1	788	4,949	6.28
WEST ST. PAUL	1	211	728	3.45
WHITE BEAR LAKE	1	115	380	3.30
DISTRICT TOTAL	**8**	**28,135**	**$89,067**	**$3.17**

		DISTRICT TOTALS		
DISTRICT 1	4	2,572	$13,854	$5.39
DISTRICT 2	6	16,595	91,681	5.52
DISTRICT 3	4	828	2,849	3.44
DISTRICT 4	1	40	260	6.50
METRO WEST	10	10,511	62,033	5.90
DISTRICT 6	4	14,950	39,814	2.66
DISTRICT 7	4	7,627	38,195	5.01
DISTRICT 8	0	0	0	0.00
METRO EAST	8	28,135	89,067	3.17
STATE TOTAL	**41**	**81,258**	**$337,753**	**$4.16**

CONCRETE PAVEMENT REMOVAL #2106



NEEDS YEAR	NO. OF CITIES	QUANTITY	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5-YEAR AVERAGE CONTRACT PRICE
1986	28	134,698	494,572	3.67	3.75	3.67
1987	15	132,405	440,715	3.33	3.75	3.51
1988	25	106,550	493,029	4.63	4.00	3.97
1989	44	276,630	886,757	3.21	3.75	3.71
1990	27	88,278	339,571	3.85	4.00	3.74
1991	27	108,995	418,053	3.84	4.00	3.77
1992	23	98,752	403,278	4.08	4.00	3.92
1993	26	190,259	770,477	4.05	4.00	3.80
1994	26	185,066	782,965	4.23	4.00	4.01
1995	27	81,258	337,753	4.16		4.07

UBCOMMITTEE'S RECOMMENDED PRICE FOR THE 1995 NEEDS STUDY IS ER SQ. YD. **$4.10**

M.S.A.S. UNIT PRICE STUDY
TREE REMOVAL - CLEARING

MUNICIPALITY	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL COST	AVERAGE UNIT PRICE
		DISTRICT 1		
HIBBING	1	30	$4,500	$150.00
INTERNATIONAL FALLS	4	12	552	46.00
DISTRICT TOTAL	**5**	**42**	**$5,052**	**$120.29**
		DISTRICT 2		
CROOKSTON	1	2	$1,400	$700.00
DISTRICT TOTAL	**1**	**2**	**$1,400**	**$700.00**
		DISTRICT 3		
CAMBRIDGE	3	60	$4,500	$75.00
SAUK RAPIDS	1	7	1,400	200.00
ST. CLOUD	1	6	624	104.00
DISTRICT TOTAL	**5**	**73**	**$6,524**	**$89.37**
		DISTRICT 4		
DISTRICT TOTAL	**0**	**0**	**$0**	**$0.00**
		METRO WEST		
ANDOVER	1	7	$525	$75.00
BLAINE	1	18	1,800	100.00
BLOOMINGTON	1	15	3,150	210.00
BROOKLYN PARK	1	25	1,550	62.00
COON RAPIDS	1	200	5,000	25.00
EAST BETHEL	1	11	880	80.00
GOLDEN VALLEY	1	7	1,470	210.00
MINNEAPOLIS	4	37	11,100	300.00
MINNETONKA	3	170	25,118	147.75
NEW HOPE	2	15	1,830	122.00
ORONO	1	10	500	50.00
RICHFIELD	1	235	29,375	125.00
DISTRICT TOTAL	**18**	**750**	**$82,298**	**$109.73**
		DISTRICT 6		
NORTHFIELD	1	4	$520	$130.00
OWATONNA	1	12	900	75.00
WINONA	1	39	5,850	150.00
DISTRICT TOTAL	**3**	**55**	**$7,270**	**$132.18**
		DISTRICT 7		
FAIRMONT	1	2	$440	$220.00
DISTRICT TOTAL	**1**	**2**	**$440**	**$220.00**
		DISTRICT 8		
DISTRICT TOTAL		**0**	**$0**	**$0.00**
		METRO EAST		
APPLE VALLEY	1	41	$1,640	$40.00
EAGAN	1	50	5,000	100.00
INVER GROVE HEIGHTS	1	2	400	200.00
LAKEVILLE	1	65	3,575	55.00
OAKDALE	1	6	900	150.00
SHOREVIEW	1	25	1,875	75.00
WHITE BEAR LAKE	1	15	1,575	105.00
DISTRICT TOTAL	**7**	**204**	**$14,965**	**$73.36**

M.S.A.S UNIT PRICE STUDY
TREE REMOVAL - GRUBBING

MUNICIPALITY	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL COST	AVERAGE UNIT PRICE
		DISTRICT 1		
HIBBING	1	30	$4,500	$150.00
INTERNATIONAL FALLS	4	12	652	54.33
DISTRICT TOTAL	**5**	**42**	**$5,152**	**$122.67**
		DISTRICT 2		
CROOKSTON	1	2	$600	$300.00
DISTRICT TOTAL	**1**	**2**	**$600**	**$300.00**
		DISTRICT 3		
CAMBRIDGE	3	60	$1,500	$25.00
ST. CLOUD	1	6	780	130.00
SAUK RAPIDS	1	8	1,200	150.00
DISTRICT TOTAL	**5**	**74**	**$3,480**	**$47.03**
		DISTRICT 4		
MOORHEAD	1	8	$200	$25.00
DISTRICT TOTAL	**1**	**8**	**$200**	**$25.00**
		METRO WEST		
ANDOVER	1	8	$600	$75.00
BLAINE	1	18	900	50.00
BLOOMINGTON	1	15	788	52.53
BROOKLYN PARK	1	30	930	31.00
COON RAPIDS	1	200	6,000	30.00
EAST BETHEL	1	11	440	40.00
GOLDEN VALLEY	1	7	385	55.00
MINNEAPOLIS	4	31	9,300	300.00
MINNETONKA	3	172	10,487	60.97
NEW HOPE	2	15	370	24.67
ORONO	1	10	500	50.00
RICHFIELD	1	235	35,250	150.00
DISTRICT TOTAL	**18**	**752**	**$65,950**	**$87.70**
		DISTRICT 6		
NORTHFIELD	1	4	$520	$130.00
OWATONNA	1	12	900	75.00
WINONA	1	39	5,850	150.00
DISTRICT TOTAL	**3**	**55**	**$7,270**	**$132.18**
		DISTRICT 7		
FAIRMONT	1	2	$440	$220.00
DISTRICT TOTAL	**1**	**2**	**$440**	**$220.00**
		DISTRICT 8		
DISTRICT TOTAL	**0**	**0**	**$0**	**$0.00**
		METRO EAST		
APPLE VALLEY	1	41	$1,640	$40.00
EAGAN	1	50	3,000	60.00
INVER GROVE HEIGHTS	1	2	200	100.00
LAKEVILLE	1	65	3,575	55.00
OAKDALE	1	6	300	50.00
SHOREVIEW	1	25	1,250	50.00
WHITE BEAR LAKE	1	20	906	45.30
DISTRICT TOTAL	**7**	**209**	**$10,871**	**$52.01**

M.S.A.S. UNIT PRICE STUDY
TREE REMOVAL - CLEARING

DISTRICT	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL COST	AVERAGE UNIT PRICE
		DISTRICT TOTALS		
DISTRICT 1	5	42	$5,052	$120.29
DISTRICT 2	1	2	1,400	700.00
DISTRICT 3	5	73	6,524	89.37
DISTRICT 4	0	0	0	0.00
METRO WEST	18	750	82,298	109.73
DISTRICT 6	3	55	7,270	132.18
DISTRICT 7	1	2	440	220.00
DISTRICT 8	0	0	0	0.00
METRO EAST	7	204	14,965	73.36
STATE TOTAL	**40**	**1,128**	**$117,949**	**$104.56**

M.S.A.S UNIT PRICE STUDY
TREE REMOVAL - GRUBBING

DISTRICT	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL COST	AVERAGE UNIT PRICE
		DISTRICT TOTALS		
DISTRICT 1	5	42	$5,152	$122.67
DISTRICT 2	1	2	600	300.00
DISTRICT 3	5	74	3,480	47.03
DISTRICT 4	1	8	200	25.00
METRO WEST	18	752	65,950	87.70
DISTRICT 6	3	55	7,270	132.18
DISTRICT 7	1	2	440	220.00
DISTRICT 8	0	0	0	0.00
METRO EAST	7	209	10,871	52.01
STATE TOTAL	**41**	**1,144**	**$93,963**	**$82.14**

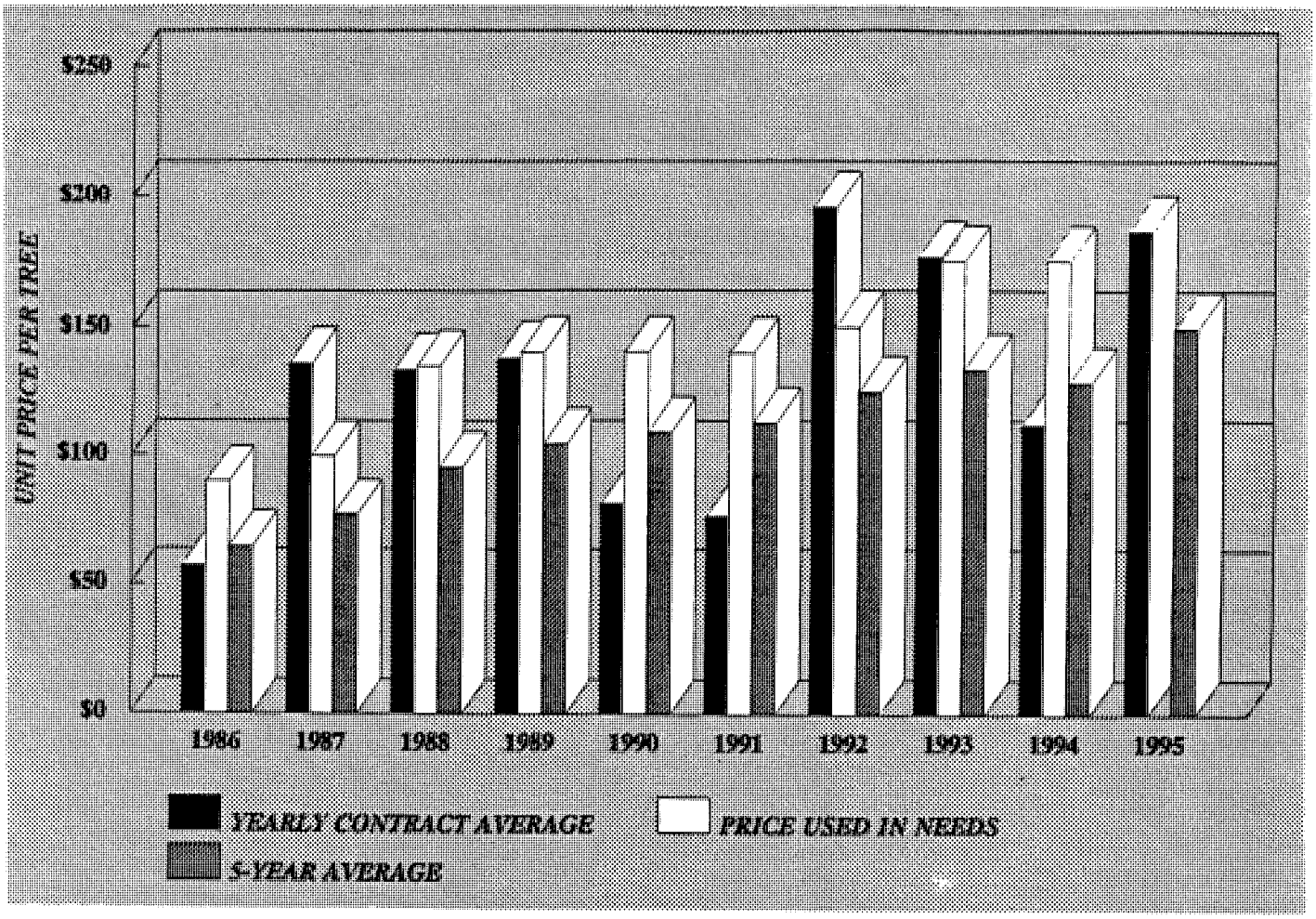
CLEARING AND GRUBBING ARE COMBINED TO COMPUTE TREE REMOVAL

	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL COST	AVERAGE UNIT PRICE
TOTAL CLEARING	40	1,128	$117,949	$104.56
TOTAL GRUBBING	41	1,144	93,963	82.14
TOTAL		2,272	$211,912	$93.27

2,272/2 = 1136 TREES

AVERAGE COST PER TREE = $211,912/1136 = $186.54

TREE REMOVAL #2101



NEEDS YEAR	NO. OF CITIES	QUANTITY	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5-YEAR AVERAGE CONTRACT PRICE
1986	30	1,442	82,586	57.27	90.00	64.56
1987	18	311	42,365	136.22	100.00	77.11
1988	19	535	71,490	133.63	135.00	95.96
1989	40	884	122,030	138.04	140.00	104.88
1990	37	1,659	135,381	81.60	140.00	109.35
1991	35	1,869	142,888	76.45	140.00	113.19
1992	39	867	169,797	195.84	150.00	125.11
1993	34	1,705	150,442	176.47	175.00	133.68
1994	35	3,753	210,444	112.15	175.00	128.50
1995	41	2,272	211,912	186.54		149.49

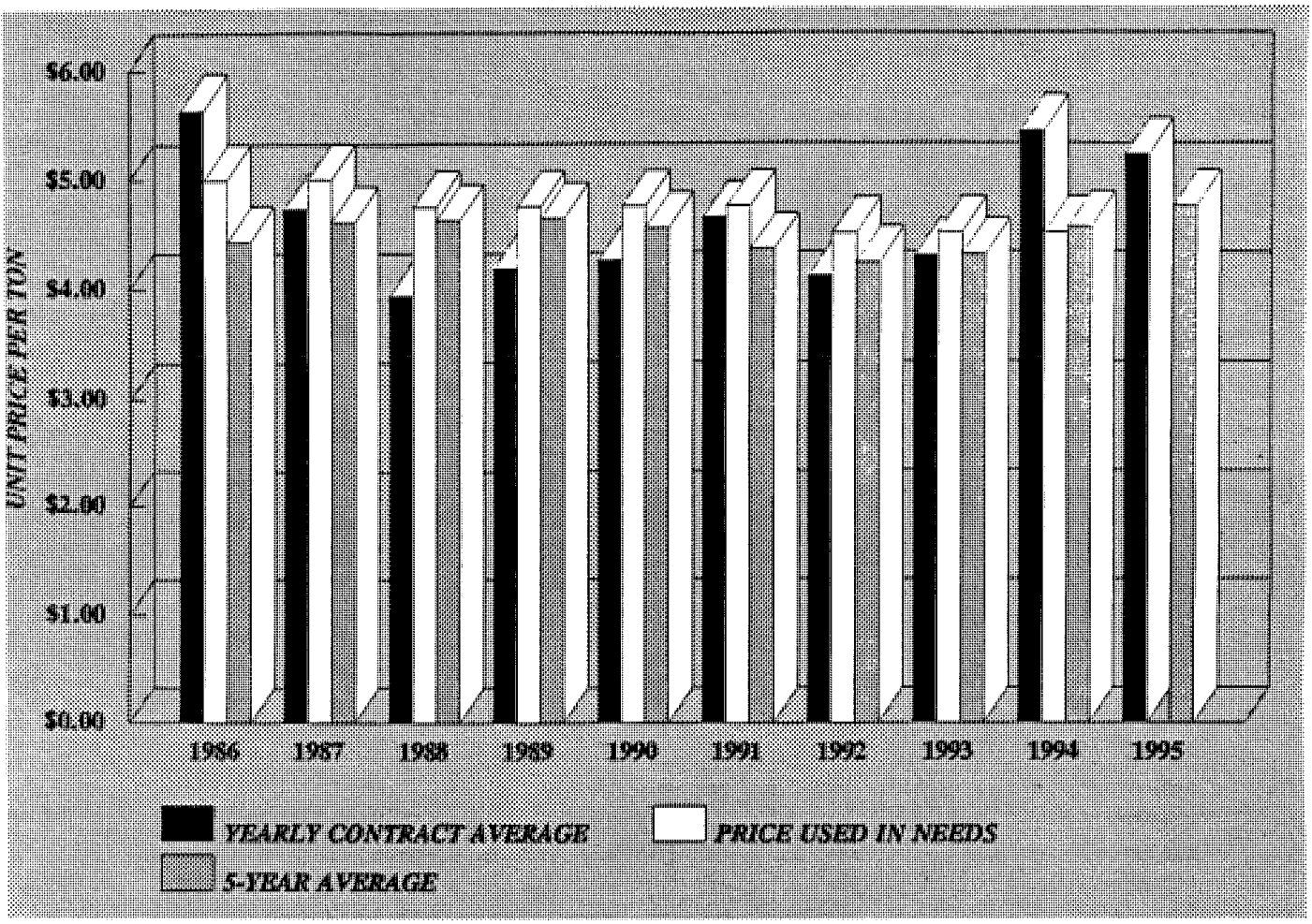
JBCOMMITTEE'S RECOMMENDED PRICE FOR THE 1995 NEEDS STUDY IS :R TREE. **$175.00**

M.S.A.S. UNIT PRICE STUDY
AGGREGATE SUBBASE 2211 - TONS

MUNICIPALITY	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL COST	AVERAGE UNIT PRICE
		DISTRICT 1		
CHISHOLM	1	2,295	$12,610	$5.49
DISTRICT TOTAL	**1**	**2,295**	**$12,610**	**$5.49**
		DISTRICT 3		
SAUK RAPIDS	1	7,476	$41,200	$5.51
DISTRICT TOTAL	**1**	**7,476**	**$41,200**	**$5.51**
		METRO WEST		
CHASKA	1	182	$1,200	$6.59
ORONO	1	1729	11,400	6.59
DISTRICT TOTAL	**2**	**1,911**	**$12,600**	**$6.59**
		DISTRICT 6		
FARIBAULT	1	333	$2,288	$6.87
DISTRICT TOTAL	**1**	**333**	**$2,288**	**$6.87**
		DISTRICT 7		
MANKATO	1	21,670	$107,163	$4.95
DISTRICT TOTAL	**1**	**21,670**	**$107,163**	**$4.95**
		METRO EAST		
SOUTH ST. PAUL	1	2,410	$13,014	$5.40
DISTRICT TOTAL	**1**	**2,410**	**$13,014**	**$5.40**

		DISTRICT TOTALS		
DISTRICT 1	1	2,295	$12,610	$5.49
DISTRICT 3	1	7,476	41,200	5.51
METRO WEST	2	1,911	12,600	6.59
DISTRICT 6	1	333	2,288	6.87
DISTRICT 7	1	21,670	107,163	4.95
METRO EAST	1	2,410	13,014	5.40
STATE TOTAL	**7**	**36,095**	**$188,875**	**$5.23**

CLASS 4 SUBBASE #2211



NEEDS YEAR	NO. OF CITIES	QUANTITY	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5-YEAR AVERAGE CONTRACT PRICE
1986	4	21,968	$123,871	$5.64	$5.00	$4.43
1987	6	52,643	248,938	4.73	5.00	4.61
1988	8	60,793	239,623	3.94	4.75	4.63
1989	10	68,406	286,398	4.19	4.75	4.64
1990	5	56,590	240,949	4.26	4.75	4.55
1991	7	30,594	142,157	4.65	4.75	4.35
1992	7	69,260	284,485	4.11	4.50	4.23
1993	3	25,634	109,928	4.29	4.50	4.30
1994	2	5,140	27,970	5.44	4.50	4.55
1995	7	36,095	188,875	5.23		4.74

COMMITTEE'S RECOMMENDED PRICE FOR THE 1995 NEEDS STUDY IS $4.70 TON.

M.S.A.S. UNIT PRICE STUDY
AGGREGATE BASE 2211 - TONS

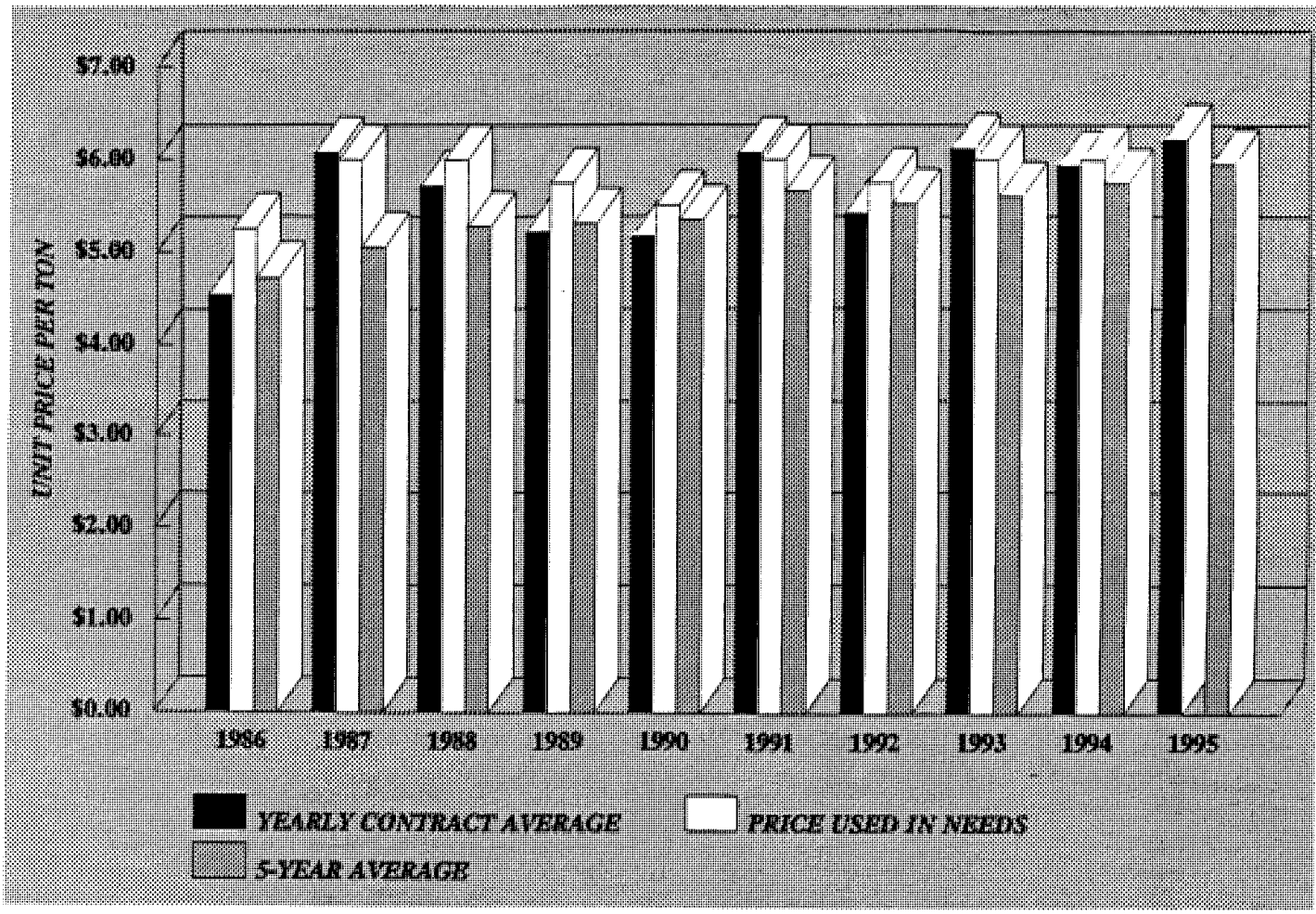
MUNICIPALITY	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL COST	AVERAGE UNIT PRICE
		DISTRICT 1		
CLOQUET	3	10,556	$58,585	$5.55
HERMANTOWN	1	3,761	17,413	4.63
HIBBING	3	17,579	132,234	7.52
INTERNATIONAL FALLS	4	8,480	67,832	8.00
DISTRICT TOTAL	**11**	**40,376**	**$276,064**	**$6.84**
		DISTRICT 2		
CROOKSTON	3	6,631	$38,588	$5.82
THIEF RIVER FALLS	3	28,360	136,844	4.83
DISTRICT TOTAL	**6**	**34,991**	**$175,432**	**$5.01**
		DISTRICT 3		
BRAINERD	2	1,922	$15,764	$8.20
CAMBRIDGE	3	12,750	90,850	7.13
ELK RIVER	2	20,350	88,238	4.34
OTSEGO	1	1,075	6,343	5.90
ST. CLOUD	4	3,348	25,771	7.70
SAUK RAPIDS	1	3,345	17,063	5.10
DISTRICT TOTAL	**13**	**42,790**	**$244,029**	**$5.70**
		DISTRICT 4		
ALEXANDRIA	1	8,322	$41,829	$5.03
DISTRICT TOTAL	**1**	**8,322**	**$41,829**	**$5.03**
		METRO WEST		
ANDOVER	2	8,046	$55,455	$6.89
BLAINE	1	10,950	62,963	5.75
BLOOMINGTON	1	4,137	26,249	6.34
BROOKLYN PARK	3	22,209	126,369	5.69
CHASKA	2	18,206	127,277	6.99
COON RAPIDS	2	7,400	47,980	6.48
CORCORAN	1	5,850	46,800	8.00
EAST BETHEL	1	6,860	48,706	7.10
FRIDLEY	1	2,934	20,885	7.12
GOLDEN VALLEY	2	5,071	38,439	7.58
HAM LAKE	2	9,031	62,314	6.90
LINO LAKES	1	905	5,231	5.78
MAPLE GROVE	2	3,024	9,530	3.15
MINNEAPOLIS	9	11,615	117,873	10.15
MINNETONKA	2	16,020	91,796	5.73
ORONO	3	14,582	113,277	7.77
PLYMOUTH	2	2,294	17,055	7.43
PRIOR LAKE	1	4,566	28,492	6.24
RICHFIELD	1	8,756	46,400	5.30
SHAKOPEE	1	13,710	23,513	1.72
SHOREWOOD	1	8	188	23.50
DISTRICT TOTAL	**41**	**176,174**	**$1,116,792**	**$6.34**

M.S.A.S. UNIT PRICE STUDY
AGGREGATE BASE 2211-TONS

MUNICIPALITY	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL COST	AVERAGE UNIT PRICE
		DISTRICT 6		
ALBERT LEA	5	11,632	$64,196	$5.52
AUSTIN	3	6,300	40,774	6.47
FARIBAULT	1	87	1,088	12.51
NORTHFIELD	1	6,208	36,503	5.88
OWATONNA	1	1,745	10,470	6.00
ROCHESTER	2	163	2,116	12.98
WINONA	1	8,880	87,734	9.88
DISTRICT TOTAL	**14**	**35,015**	**$242,881**	**$6.94**
		DISTRICT 7		
FAIRMONT	3	9,972	$57,461	$5.76
MANKATO	1	16,959	134,595	7.94
ST. PETER	1	8,355	48,877	5.85
DISTRICT TOTAL	**5**	**35,286**	**$240,933**	**$6.83**
		DISTRICT 8		
HUTCHINSON	2	5,636	$29,671	$5.26
WILLMAR	1	218	1,526	7.00
DISTRICT TOTAL	**3**	**5,854**	**$31,197**	**$5.33**
		METRO EAST		
APPLE VALLEY	3	18,588	$83,646	$4.50
EAGAN	1	19,830	133,053	6.71
HASTINGS	1	90	536	5.96
INVER GROVE HEIGHTS	2	7,582	45,383	5.99
LAKEVILLE	1	25,627	150,505	5.87
MOUNDS VIEW	1	2,580	18,428	7.14
OAKDALE	1	3,940	12,776	3.24
ROSEVILLE	1	3,375	25,313	7.50
ST. PAUL	3	12,969	81,815	6.31
SHOREVIEW	2	12,364	96,439	7.80
SOUTH ST. PAUL	1	1,205	6,507	5.40
STILLWATER	3	1,565	14,356	9.17
WEST ST. PAUL	1	1,507	10,323	6.85
WHITE BEAR LAKE	2	1,578	12,348	7.83
WOODBURY	2	18,381	80,475	4.38
DISTRICT TOTAL	**25**	**112,800**	**$691,428**	**$6.13**

		DISTRICT TOTALS		
DISTRICT 1	11	40,376	$276,064	$6.84
DISTRICT 2	6	34,991	175,432	5.01
DISTRICT 3	13	42,790	244,029	5.70
DISTRICT 4	1	8,322	41,829	5.03
METRO WEST	41	176,174	1,116,792	6.34
DISTRICT 6	14	35,015	242,881	6.94
DISTRICT 7	5	35,286	240,933	6.83
DISTRICT 8	3	5,854	31,197	5.33
METRO EAST	25	112,800	691,428	6.13
STATE TOTAL	**119**	**491,608**	**$3,060,585**	**$6.23**

CLASS 5 AGGREGATE BASE #2211



NEEDS YEAR	NO. OF CITIES	QUANTITY	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5-YEAR AVERAGE CONTRAC PRICE
1986	63	584,097	$2,651,362	$4.54	$5.25	$4.7
1987	61	455,259	2,768,438	6.08	6.00	5.0
1988	51	381,898	2,185,112	5.72	6.00	5.2
1989	70	648,988	3,385,938	5.22	5.75	5.3
1990	68	715,922	3,696,421	5.16	5.50	5.3
1991	70	553,874	3,368,664	6.08	6.00	5.6
1992	69	650,835	3,525,629	5.42	5.75	5.5
1993	60	621,247	3,807,092	6.13	6.00	5.6
1994	70	660,174	3,921,230	5.94	6.00	5.7
1995	61	491,608	3,060,585	6.23		5.9

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 1995 NEEDS STUDY IS PER TON. **$6.00**

M.S.A.S. UNIT PRICE STUDY
BIT. BASE & SURF. 2331 - TONS

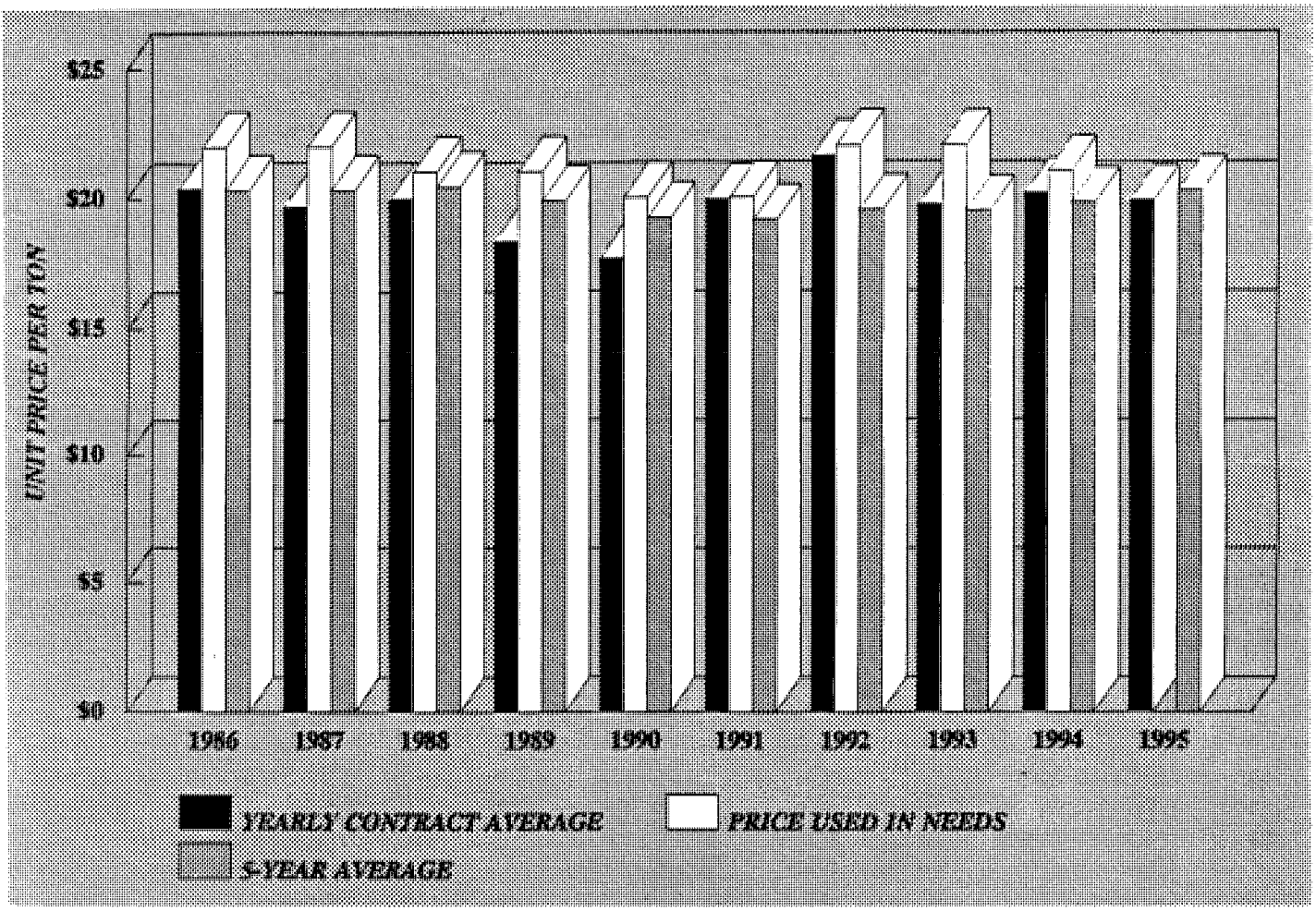
MUNICIPALITY	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL COST	AVERAGE UNIT PRICE
		DISTRICT 1		
CLOQUET	3	2,944	$68,268	$23.19
HERMANTOWN	1	1,486	28,977	19.50
HIBBING	3	4,505	107,510	23.86
INTERNATIONAL FALLS	4	468	24,456	52.26
DISTRICT TOTAL	**11**	**9,403**	**$229,211**	**$24.38**
		DISTRICT 2		
CROOKSTON	7	1,505	$40,658	$27.02
THIEF RIVER FALLS	3	4,343	116,598	26.85
DISTRICT TOTAL	**10**	**5,848**	**$157,256**	**$26.89**
		DISTRICT 3		
BRAINERD	2	730	$16,936	$23.20
CAMBRIDGE	3	3,140	56,845	18.10
ELK RIVER	2	5,930	95,633	16.13
OTSEGO	1	300	7,686	25.62
ST. CLOUD	4	1,440	26,914	18.69
SAUK RAPIDS	1	1,190	22,741	19.11
DISTRICT TOTAL	**13**	**12,730**	**$226,755**	**$17.81**
		DISTRICT 4		
ALEXANDRIA	1	1,185	$21,923	$18.50
FERGUS FALLS	1	40	762	19.05
MOORHEAD	2	1,940	51,821	26.71
DISTRICT TOTAL	**4**	**3,165**	**$74,506**	**$23.54**
		METRO WEST		
ANDOVER	2	2466	$50,685	$20.55
BLAINE	1	3,020	61,910	20.50
BLOOMINGTON	1	6,325	123,338	19.50
BROOKLYN PARK	3	17,982	302,894	16.84
CHASKA	2	2,350	39,954	17.00
COON RAPIDS	2	3,800	86,985	22.89
CORCORAN	1	2,950	58,263	19.75
EAST BETHEL	1	2,400	46,200	19.25
FRIDLEY	1	622	14,306	23.00
GOLDEN VALLEY	2	6,281	123,804	19.71
HAM LAKE	2	3,085	64,785	21.00
LINO LAKES	1	655	12,445	19.00
MAPLE GROVE	2	2,988	67,102	22.46
MINNEAPOLIS	1	177	4,575	25.85
MINNETONKA	2	5,845	126,767	21.69
ORONO	3	3,699	59,940	16.20
PLYMOUTH	2	1,200	24,632	20.53
PRIOR LAKE	1	1,380	28,428	20.60
RICHFIELD	1	1,394	28,705	20.59
SHAKOPEE	1	930	21,125	22.72
DISTRICT TOTAL	**32**	**69,549**	**$1,346,843**	**$19.37**

M.S.A.S. UNIT PRICE STUDY
BIT. BASE & SURF. 2331 - TONS

MUNICIPALITY	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL COST	AVERAGE UNIT PRICE
		DISTRICT 6		
ALBERT LEA	3	3,717	$80,165	$21.57
AUSTIN	1	5,020	118,595	23.62
FARIBAULT	1	152	3,344	22.00
NORTHFIELD	1	827	16,540	20.00
OWATONNA	1	42	1890	45.00
DISTRICT TOTAL	**7**	**9,758**	**$220,534**	**$22.60**
		DISTRICT 7		
FAIRMONT	4	4,087	$122,943	$30.08
MANKATO	1	3,218	76,050	23.63
ST. PETER	1	2,236	42,484	19.00
DISTRICT TOTAL	**6**	**9,541**	**$241,477**	**$25.31**
		DISTRICT 8		
HUTCHINSON	3	1,550	$35,842	$23.12
DISTRICT TOTAL	**3**	**1,550**	**$35,842**	**$23.12**
		METRO EAST		
APPLE VALLEY	3	11,673	$201,298	$17.24
COTTAGE GROVE	1	13,200	244,200	18.50
EAGAN	1	8,000	144,800	18.10
INVER GROVE HEIGHTS	2	4,440	74,203	16.71
LAKEVILLE	1	7,038	108,778	15.46
MOUNDS VIEW	1	598	13,754	23.00
OAKDALE	1	825	18,480	22.40
ROSEVILLE	2	822	18,446	22.44
ST. PAUL	3	9,714	181,796	18.71
SOUTH ST. PAUL	1	575	10,178	17.70
SHOREVIEW	2	3,093	57,597	18.62
STILLWATER	2	860	17,200	20.00
WEST ST. PAUL	1	1,400	28,742	20.53
WHITE BEAR LAKE	1	176	3,323	18.88
WOODBURY	2	6,805	135,790	19.95
DISTRICT TOTAL	**24**	**69,219**	**$1,258,585**	**$18.18**

		DISTRICT TOTALS		
DISTRICT 1	11	9,403	$229,211	$24.38
DISTRICT 2	10	5,848	157,256	26.89
DISTRICT 3	13	12,730	226,755	17.81
DISTRICT 4	4	3,165	74,506	23.54
METRO WEST	32	69,549	1,346,843	19.37
DISTRICT 6	7	9,758	220,534	22.60
DISTRICT 7	6	9,541	241,477	25.31
DISTRICT 8	3	1,550	35,842	23.12
METRO EAST	24	69,219	1,258,585	18.18
STATE TOTAL	**110**	**190,763**	**$3,791,009**	**$19.87**

BITUMINOUS BASE OR SURFACE #2331



NEEDS YEAR	NO. OF CITIES	QUANTITY	TOTAL COST	YEARLY AVERAGE CONTRACT AMOUNT	PRICE USED IN NEEDS	5-YEAR AVERAGE CONTRACT AMOUNT
1986	62	294,318	$6,000,326	$20.39	$22.00	$20.30
1987	63	261,043	5,130,552	19.65	22.00	20.29
1988	50	176,177	3,515,861	19.96	21.00	20.43
1989	71	316,333	5,793,245	18.31	21.00	19.87
1990	61	313,022	5,517,034	17.63	20.00	19.19
1991	70	349,058	6,952,316	19.92	20.00	19.09
1992	67	358,244	7,739,246	21.60	22.00	19.48
1993	58	243,491	4,791,236	19.68	22.00	19.43
1994	68	265,414	5,339,712	20.12	21.00	19.79
1995	59	190,763	3,791,009	19.87		20.24

IBCOMMITTEE'S RECOMMENDED PRICE FOR THE 1995 NEEDS STUDY IS R TON. **$20.00**

M.S.A.S. UNIT PRICE STUDY
BIT. SURF. 2341 - TONS

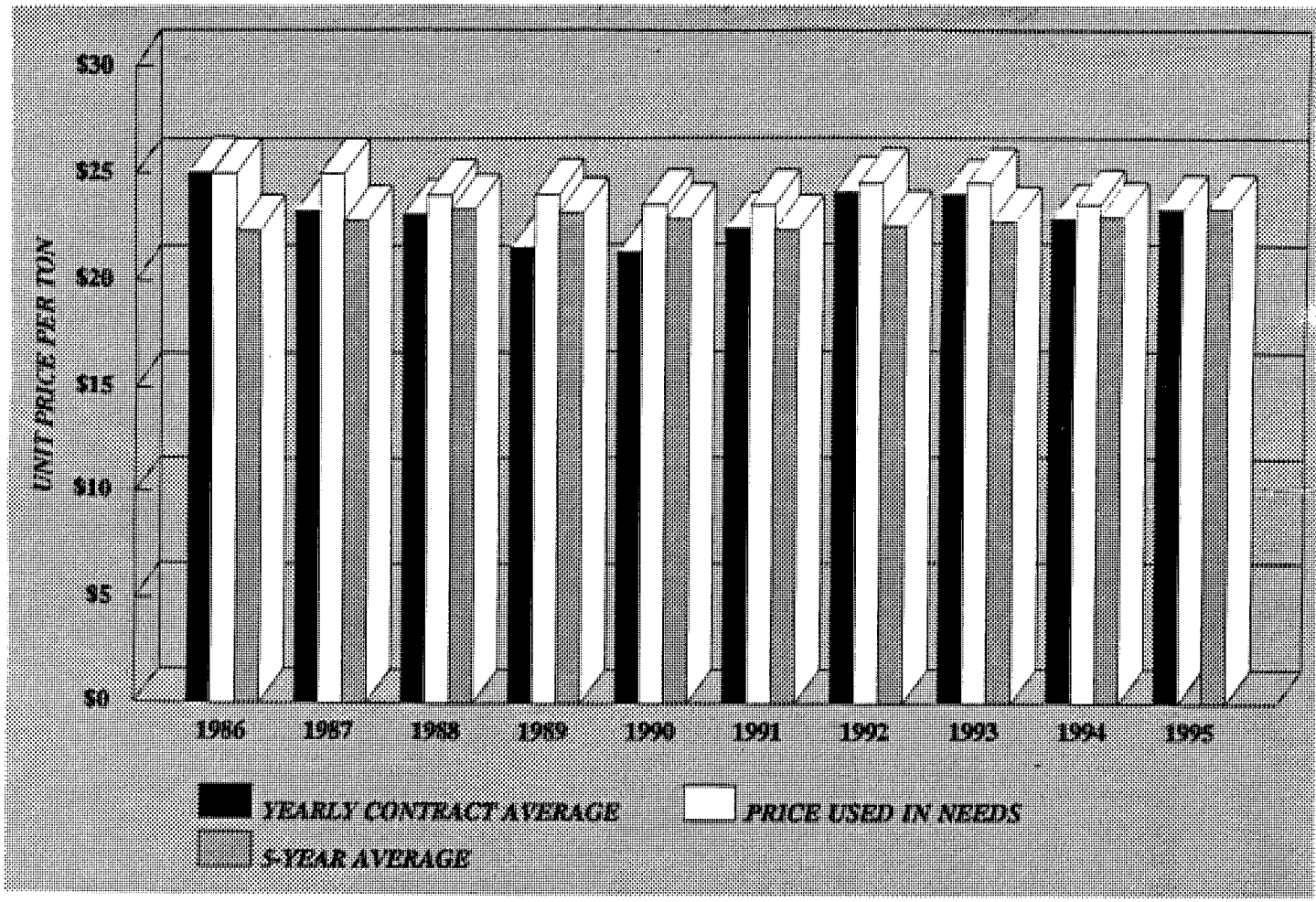
MUNICIPALITY	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL COST	AVERAGE UNIT PRICE
		DISTRICT 1		
CLOQUET	3	1,262	$34,940	$27.69
HERMANTOWN	1	746	18,288	24.51
INTERNATIONAL FALLS	2	1,185	24,631	20.79
DISTRICT TOTAL	**6**	**3,193**	**$77,859**	**$24.38**
		DISTRICT 2		
CROOKSTON	7	3,531	$86,660	$24.54
DISTRICT TOTAL	**7**	**3,531**	**$86,660**	**$24.54**
		DISTRICT 3		
BRAINERD	2	749	$17,789	$23.75
CAMBRIDGE	3	2,615	64,566	24.69
ELK RIVER	1	2,110	41,190	19.52
OTSEGO	1	230	6,950	30.22
ST. CLOUD	4	1,487	30,307	20.38
SAUK RAPIDS	1	910	18,627	20.47
DISTRICT TOTAL	**12**	**8,101**	**$179,429**	**$22.15**
		DISTRICT 4		
ALEXANDRIA	1	1,185	$24,060	$20.30
FERGUS FALLS	1	2,815	57,020	20.26
MOORHEAD	2	4,900	137,200	28.00
DISTRICT TOTAL	**4**	**8,900**	**$218,280**	**$24.53**
		METRO WEST		
ANDOVER	2	2,982	$48,507	$16.27
BLAINE	1	5,750	129,375	22.50
BLOOMINGTON	1	1,807	41,488	22.96
BROOKLYN PARK	6	26,149	527,401	20.17
CHASKA	2	3,616	66,425	18.37
COLUMBIA HEIGHTS	3	5,167	129,424	25.05
COON RAPIDS	1	800	17,920	22.40
CORCORAN	1	2,300	47,100	20.48
EAST BETHEL	1	1,800	39,575	21.99
FRIDLEY	1	470	12,484	26.56
GOLDEN VALLEY	2	3,545	85,667	24.17
HAM LAKE	2	2,057	47,656	23.17
LINO LAKES	1	220	4,974	22.61
MAPLE GROVE	2	10,181	225,768	22.18
MINNEAPOLIS	7	36,011	912,274	25.33
MINNETONKA	3	8,071	183,433	22.73
ORONO	3	1,541	53,009	34.40
PLYMOUTH	2	3,100	98,926	31.91
PRIOR LAKE	1	668	15,410	23.07
RICHFIELD	1	1,129	29,498	26.13
ST. LOUIS PARK	1	950	27,189	28.62
SHAKOPEE	1	930	22,987	24.72
DISTRICT TOTAL	**45**	**119,244**	**$2,766,490**	**$23.20**

M.S.A.S. UNIT PRICE STUDY
BIT. SURF. 2341 - TONS

MUNICIPALITY	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL COST	AVERAGE UNIT PRICE
		DISTRICT 6		
ALBERT LEA	4	5,732	$142,662	$24.89
AUSTIN	1	1,300	34,200	26.31
FARIBAULT	1	182	4,548	24.99
NORTHFIELD	1	621	14,904	24.00
OWATONNA	1	42	2,140	50.95
WINONA	1	3,283	98,490	30.00
DISTRICT TOTAL	**9**	**11,160**	**$296,944**	**$26.61**
		DISTRICT 7		
MANKATO	1	5,494	$147,224	$26.80
ST. PETER	1	886	20,022	22.60
DISTRICT TOTAL	**2**	**6,380**	**$167,246**	**$26.21**
		DISTRICT 8		
DISTRICT TOTAL	**0**	**0**	**$0**	**$0.00**
		METRO EAST		
COTTAGE GROVE	1	6,600	$152,100	$23.05
EAGAN	1	2,900	57,500	19.83
HASTINGS	1	6	114	19.00
INVER GROVE HEIGHTS	2	1,766	34,765	19.69
LAKEVILLE	1	2,663	46,669	17.52
MOUNDS VIEW	1	445	11,810	26.54
OAKDALE	1	660	16,444	24.92
ROSEVILLE	3	3,523	69,675	19.78
ST. PAUL	3	2,887	66,610	23.07
SHOREVIEW	2	2,568	57,282	22.31
SOUTH ST. PAUL	1	670	13,534	20.20
STILLWATER	2	482	9,877	20.49
WEST ST. PAUL	1	610	13,872	22.74
WHITE BEAR LAKE	2	564	11,519	20.42
WOODBURY	2	4,130	93,719	22.69
DISTRICT TOTAL	**24**	**30,474**	**$655,490**	**$21.51**

		DISTRICT TOTALS		
DISTRICT 1	6	3,193	$77,859	$24.38
DISTRICT 2	7	3,531	86,660	24.54
DISTRICT 3	12	8,101	179,429	22.15
DISTRICT 4	4	8,900	218,280	24.53
METRO WEST	45	119,244	2,766,490	23.20
DISTRICT 6	9	11,160	296,944	26.61
DISTRICT 7	2	6,380	167,246	26.21
DISTRICT 8	0	0	0	0.00
METRO EAST	24	30,474	655,490	21.51
STATE TOTAL	**109**	**190,983**	**$4,448,398**	**$23.29**

BITUMINOUS SURFACE #2341



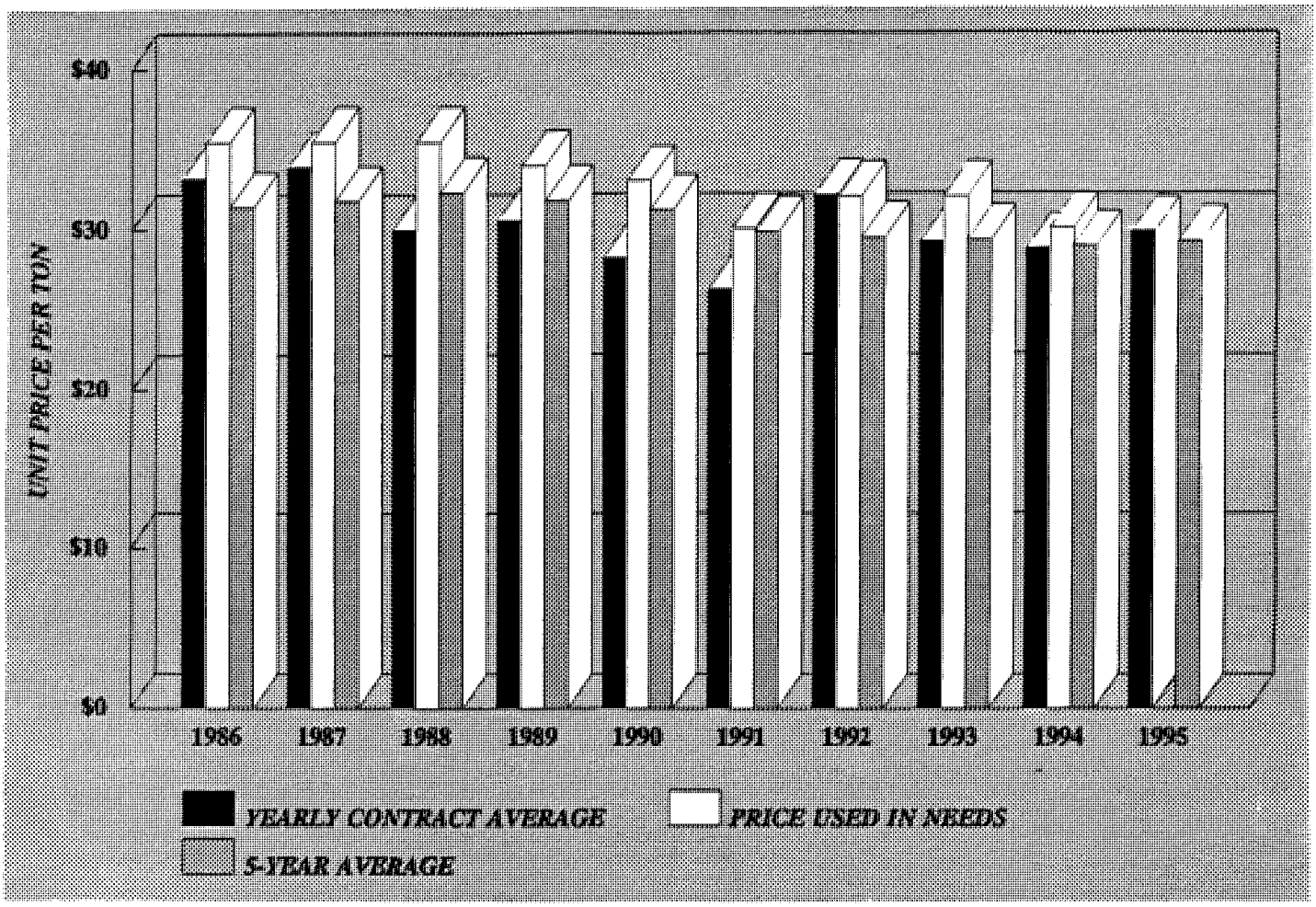
NEEDS YEAR	NO. OF CITIES	QUANTITY	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5-YEAR AVERAGE CONTRACT PRICE
1986	50	154,773	$3,876,447	$25.05	$25.00	$22.3
1987	55	122,701	2,851,035	23.24	25.00	22.7
1988	47	101,894	2,352,539	23.09	24.00	23.3
1989	58	144,986	3,119,592	21.52	24.00	23.1
1990	44	127,267	2,707,906	21.28	23.50	22.8
1991	48	125,102	2,804,228	22.42	23.50	22.3
1992	31	77,735	1,873,836	24.11	24.50	22.4
1993	66	124,623	2,988,543	23.98	24.50	22.6
1994	52	201,120	4,584,015	22.79	23.50	22.9
1995	58	190,983	4,448,398	23.29		23.3

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 1995 NEEDS STUDY IS $23.50 PER TON.

M.S.A.S. UNIT PRICE STUDY
BIT. SURF. 2361 - TONS

MUNICIPALITY	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL COST	AVERAGE UNIT PRICE
		DISTRICT 1		
HIBBING	3	6,250	$168,100	$26.90
DISTRICT TOTAL	**3**	**6,250**	**$168,100**	**$26.90**
		DISTRICT 2		
DISTRICT TOTAL	**0**	**0**	**$0**	**$0.00**
		DISTRICT 3		
ELK RIVER	1	2,000	$49,700	$24.85
ST. CLOUD	3	3,725	95,414	25.61
DISTRICT TOTAL	**4**	**5,725**	**$145,114**	**$25.35**
		DISTRICT 4		
MOORHEAD	2	2,300	$84,920	$36.92
DISTRICT TOTAL	**2**	**2,300**	**$84,920**	**$36.92**
		METRO WEST		
MINNEAPOLIS	6	7,527	$232,229	$30.85
DISTRICT TOTAL	**6**	**7,527**	**$232,229**	**$30.85**
		DISTRICT 6		
DISTRICT TOTAL	**0**	**0**	**$0**	**$0.00**
		DISTRICT 7		
FAIRMONT	4	2,513	$100,651	$40.05
DISTRICT TOTAL	**4**	**2,513**	**$100,651**	**$40.05**
		DISTRICT 8		
HUTCHINSON	2	454	$12,939	$28.50
DISTRICT TOTAL	**2**	**454**	**$12,939**	**$28.50**
		METRO EAST		
WOODBURY	2	3,675	$103,628	$28.20
DISTRICT TOTAL	**2**	**3,675**	**$103,628**	**$28.20**
		DISTRICT TOTALS		
DISTRICT 1	3	6,250	$168,100	$26.90
DISTRICT 2	0	0	0	0
DISTRICT 3	4	5,725	145,114	25.35
DISTRICT 4	2	2,300	84,920	36.92
METRO WEST	6	7,527	232,229	30.85
DISTRICT 6	0	0	0	0.00
DISTRICT 7	4	2,513	100,651	40.05
DISTRICT 8	2	454	12,939	28.50
METRO EAST	2	3,675	103,628	28.20
STATE TOTAL	**23**	**28,444**	**$847,581**	**$29.80**

BITUMINOUS SURFACE #2361



NEEDS	NO. OF CITIES	QUANTITY	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5-YEAR AVERAGE CONTRACT PRICE
1986	18	36,507	$1,213,006	$33.23	$35.50	$31.40
1987	14	25,213	855,500	33.93	35.50	31.78
1988	11	23,776	713,311	30.00	35.50	32.33
1989	17	25,201	770,369	30.57	34.00	31.81
1990	14	31,527	888,370	28.18	33.00	31.18
1991	13	13,901	364,419	26.22	30.00	29.78
1992	3	6,186	198,585	32.10	32.00	29.41
1993	13	33,901	991,209	29.14	32.00	29.24
1994	11	24,412	700,939	28.71	30.00	28.87
1995	8	28,444	847,581	29.80		29.19

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 1995 NEEDS STUDY IS PER TON. **$30.00**

M.S.A.S. UNIT PRICE STUDY
CURB AND GUTTER CONSTRUCTION

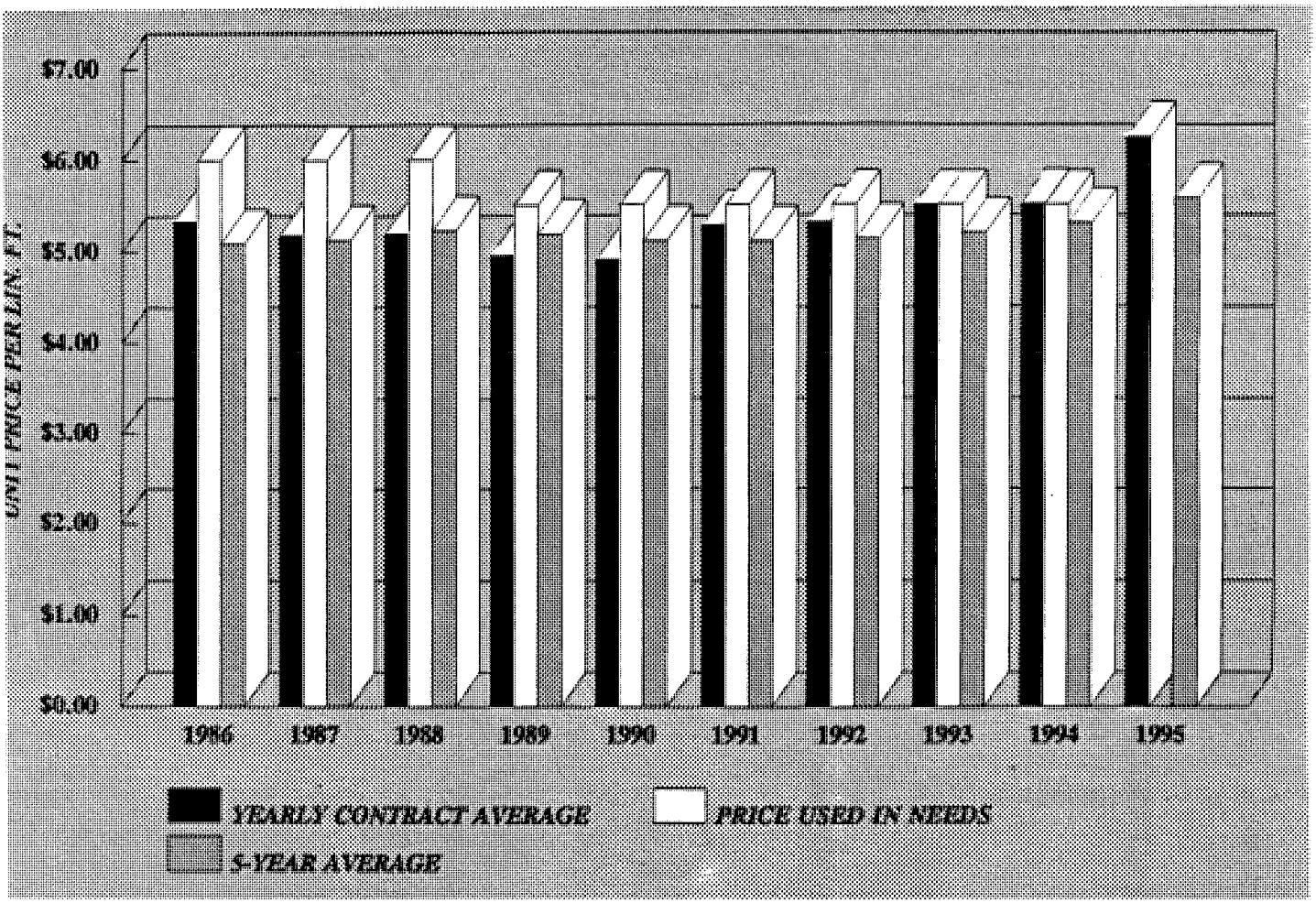
MUNICIPALITY	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL AMOUNT	AVERAGE UNIT PRICE
		DISTRICT 1		
CLOQUET	2	3,660	$27,816	$7.60
HIBBING	3	26,775	153,361	5.73
HERMANTOWN	1	5,351	32,909	6.15
INTERNATIONAL FALLS	4	45	720	16.00
DISTRICT TOTAL	**10**	**35,831**	**$214,806**	**$5.99**
		DISTRICT 2		
CROOKSTON	5	4,795	$42,103	$8.78
THIEF RIVER FALLS	3	5,184	38,362	7.40
DISTRICT TOTAL	**8**	**9,979**	**$80,465**	**$8.06**
		DISTRICT 3		
BRAINERD	2	3,237	$22,336	$6.90
CAMBRIDGE	3	12,810	67,250	5.25
ELK RIVER	2	16,780	79,029	4.71
OTSEGO	1	800	7,400	9.25
ST. CLOUD	2	1,700	9,404	5.53
SAUK RAPIDS	1	4,552	22,760	5.00
DISTRICT TOTAL	**11**	**39,879**	**$208,179**	**$5.22**
		DISTRICT 4		
ALEXANDRIA	1	4,668	$29,175	$6.25
FERGUS FALLS	1	217	1,302	6.00
MOORHEAD	4	1,900	19,000	10.00
DISTRICT TOTAL	**6**	**6,785**	**$49,477**	**$7.29**
		METRO WEST		
ANDOVER	2	11,800	$53,595	$4.54
BLAINE	1	1,275	7,650	6.00
BLOOMINGTON	1	6,793	40,062	5.90
BROOKLYN PARK	6	32,403	169,690	5.24
CHASKA	2	9,208	51,413	5.58
COON RAPIDS	2	7,920	39,064	4.93
FRIDLEY	1	2,434	11,805	4.85
GOLDEN VALLEY	2	7,023	42,859	6.10
HAM LAKE	2	14,506	62,434	4.30
LINO LAKES	1	990	4,752	4.80
MAPLE GROVE	2	12,370	71,236	5.76
MINNEAPOLIS	10	78,941	781,507	9.90
MINNETONKA	3	22,296	118,120	5.30
NEW HOPE	1	15	240	16.00
ORONO	2	8,010	41,980	5.24
PLYMOUTH	1	1,240	6,237	5.03
PRIOR LAKE	1	5,700	27,075	4.75
RICHFIELD	1	15,937	96,503	6.06
ST. LOUIS PARK	1	475	6,233	13.12
SHAKOPEE	1	2,850	13,965	4.90
SHOREWOOD	1	220	3,080	14.00
DISTRICT TOTAL	**44**	**242,406**	**$1,649,500**	**$6.80**

M.S.A.S. UNIT PRICE STUDY
CURB AND GUTTER CONSTRUCTION

MUNICIPALITY	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL AMOUNT	AVERAGE UNIT PRICE
		DISTRICT 6		
ALBERT LEA	4	2,510	$32,766	$13.05
AUSTIN	3	4,710	40,170	8.53
FARIBAULT	1	577	3,289	5.70
NORTHFIELD	1	2,497	12,210	4.89
OWATONNA	1	1,460	9,490	6.50
ROCHESTER	1	507	7,350	14.50
WINONA	1	6,193	42,422	6.85
DISTRICT TOTAL	**12**	**18,454**	**$147,697**	**$8.00**
		DISTRICT 7		
FAIRMONT	3	14,857	$103,808	$6.99
MANKATO	1	16,128	105,532	6.54
ST. PETER	1	2,768	15,778	5.70
DISTRICT TOTAL	**5**	**33,753**	**$225,118**	**$6.67**
		DISTRICT 8		
HUTCHINSON	3	678	$6,589	$9.72
WILLMAR	1	1,470	11,025	7.50
DISTRICT TOTAL	**4**	**2,148**	**$17,614**	**$8.20**
		METRO EAST		
APPLE VALLEY	3	16,170	$63,873	$3.95
COTTAGE GROVE	1	44,700	224,250	5.02
EAGAN	!	10,000	50,000	5.00
HASTINGS	1	1,220	12,200	10.00
INVER GROVE HEIGHTS	1	3,975	19,470	4.90
LAKEVILLE	1	15,860	85,644	5.40
MOUNDS VIEW	1	2,421	11,742	4.85
OAKDALE	1	4,020	18,492	4.60
ROSEVILLE	3	4,509	28,406	6.30
ST. PAUL	2	13,267	82,697	6.23
SHOREVIEW	1	12,130	56,283	4.64
SOUTH ST. PAUL	1	835	4,233	5.07
STILLWATER	2	687	3,844	5.60
WEST ST. PAUL	1	1,910	8,843	4.63
WHITE BEAR LAKE	3	1,240	9,644	7.78
WOODBURY	1	6,500	30,550	4.70
DISTRICT TOTAL	**24**	**139,444**	**$710,171**	**$5.09**

		DISTRICT TOTALS		
DISTRICT 1	10	35,831	$214,806	$5.99
DISTRICT 2	8	9,979	80,465	8.06
DISTRICT 3	11	39,879	208,179	5.22
DISTRICT 4	6	6,785	49,477	7.29
METRO-WEST	44	242,406	1,649,500	6.80
DISTRICT 6	12	18,454	147,697	8.00
DISTRICT 7	5	33,753	225,118	6.67
DISTRICT 8	4	2,148	17,614	8.20
METRO-EAST	24	139,444	710,171	5.09
TOTAL	**124**	**528,679**	**$3,303,027**	**$6.25**

CURB & GUTTER CONSTRUCTION #2531



NEEDS YEAR	NO. OF CITIES	QUANTITY	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5-YEAR AVERAGE CONTRACT PRICE
1986	61	469,258	$2,498,655	$5.32	$6.00	$5.08
1987	67	434,124	2,243,498	5.17	6.00	5.12
1988	51	359,952	1,868,721	5.19	6.00	5.22
1989	73	606,413	3,002,995	4.95	5.50	5.18
1990	57	603,356	2,954,409	4.90	5.50	5.11
1991	67	559,342	2,952,849	5.28	5.50	5.10
1992	68	523,717	2,783,163	5.31	5.50	5.13
1993	69	515,687	2,836,644	5.50	5.50	5.19
1994	70	460,898	2,538,790	5.51	5.50	5.30
1995	64	528,679	3,303,027	6.25		5.57

COMMITTEE'S RECOMMENDED PRICE FOR THE 1995 NEEDS STUDY IS **$5.75** **LIN. FT.**

M.S.A.S. UNIT PRICE STUDY
SIDEWALK CONSTRUCTION - SQUARE YARD
(Two decimal places was used in the quantity column so the conversion from square feet to square yards would be more accurate.)

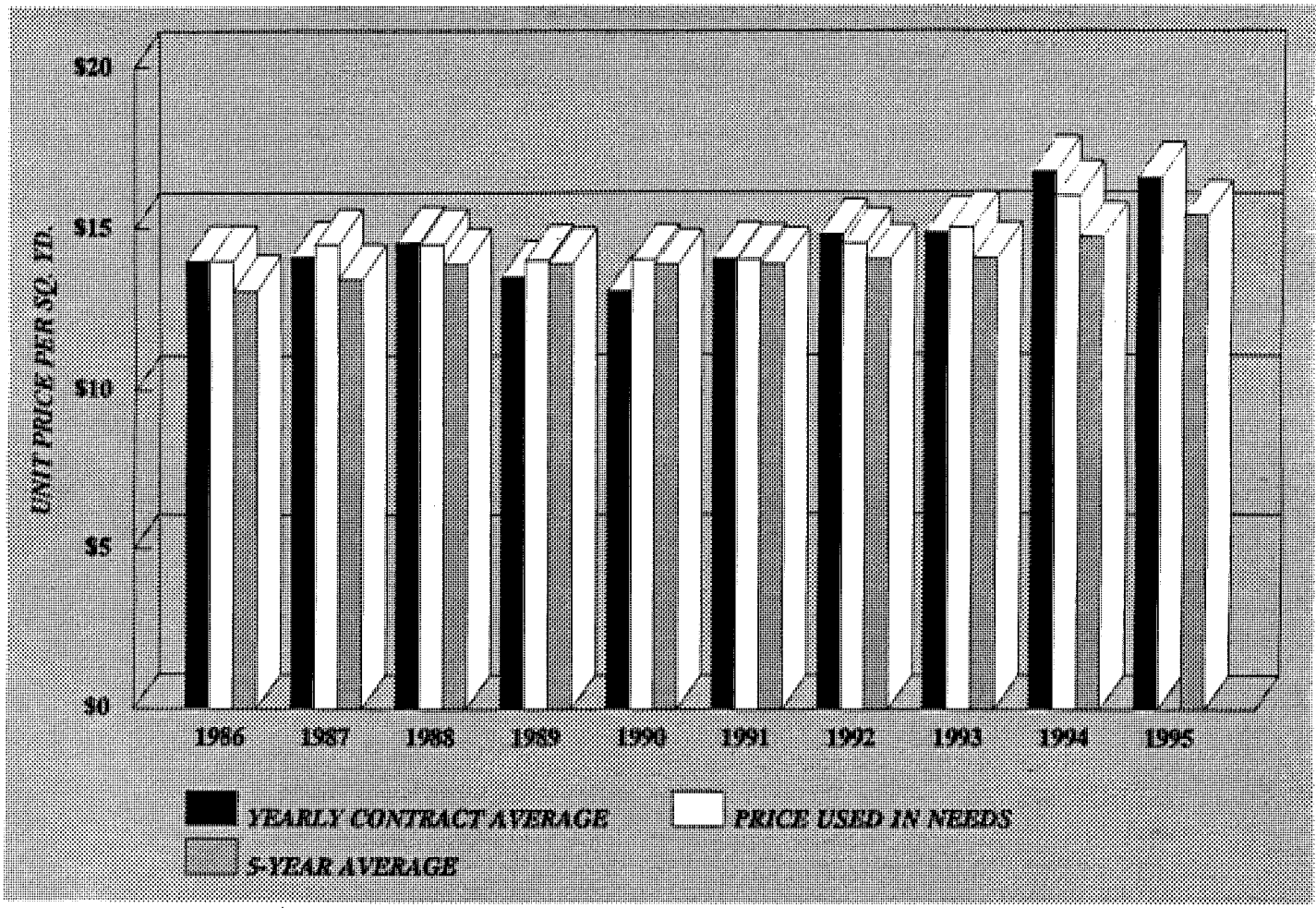
MUNICIPALITY	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL COST	AVERAGE UNIT PRICE
		DISTRICT 1		
CHISHOLM	1	2,654.11	$41,802	$15.75
CLOQUET	2	1,651.66	29,730	18.00
HERMANTOWN	1	1,203.00	20,463	17.01
HIBBING	3	12,612.23	178,593	14.16
INTERNATIONAL FALLS	4	290.24	6,532	22.51
DISTRICT TOTAL	**11**	**18,411.24**	**$277,120**	**$15.05**
		DISTRICT 2		
CROOKSTON	3	1,799.44	$29,637	$16.47
THIEF RIVER FALLS	3	4,811.33	113,018	23.49
DISTRICT TOTAL	**6**	**6,610.77**	**$142,655**	**$21.58**
		DISTRICT 3		
BRAINERD	2	2,553.22	$32,171	$12.60
CAMBRIDGE	3	3,343.34	50,877	15.22
ELK RIVER	2	5,370.00	67,756	12.62
ST. CLOUD	1	366.67	4,620	12.60
SAUK RAPIDS	1	1,078.78	13,843	12.83
DISTRICT TOTAL	**9**	**12,712.01**	**$169,267**	**$13.32**
		DISTRICT 4		
MOORHEAD	3	520.00	$9,405	$18.09
DISTRICT TOTAL	**3**	**520.00**	**$9,405**	**$18.09**
		METRO WEST		
BLAINE	1	897.22	$12,759	$14.22
BLOOMINGTON	1	1,968.00	31,095	15.80
BROOKLYN PARK	6	8,744.43	122,091	13.96
COON RAPIDS	2	1,266.67	18,900	14.92
GOLDEN VALLEY	2	1869.33	27,348	14.63
MINNEAPOLIS	10	33,072.78	637,184	19.27
MINNETONKA	2	2,907.44	45,134	15.52
NEW HOPE	4	555.55	12,600	22.68
ORONO	1	2.22	100	45.05
PLYMOUTH	1	233.33	3,486	14.94
PRIOR LAKE	1	825.56	11,145	13.50
RICHFIELD	1	6,098.56	111,500	18.28
SHAKOPEE	1	1,477.78	21,280	14.40
SHOREWOOD	1	1,351.78	23,115	17.10
DISTRICT TOTAL	**34**	**61,270.65**	**$1,077,737**	**$17.59**

M.S.A.S. UNIT PRICE STUDY
SIDEWALK CONSTRUCTION - SQUARE YARD

MUNICIPALITY	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL COST	AVERAGE UNIT PRICE
		DISTRICT 6		
ALBERT LEA	2	156.00	$3,370	$21.60
AUSTIN	3	3,018.89	52,949	17.54
FARIBAULT	1	17.11	236	13.79
NORTHFIELD	1	1,859.89	25,778	13.86
OWATONNA	1	719.78	12,771	17.74
ROCHESTER	2	53.45	1,239	23.18
WINONA	1	3,309.89	58,607	17.71
DISTRICT TOTAL	**11**	**9,135.01**	**$154,950**	**$16.96**
		DISTRICT 7		
FAIRMONT	3	2,363.22	$50,342	$21.30
MANKATO	1	760.56	11,637	15.30
ST. PETER	1	1,435.44	21,316	14.85
DISTRICT TOTAL	**5**	**4,559.22**	**$83,295**	**$18.27**
		DISTRICT 8		
HUTCHINSON	1	710.00	$15,975	$22.50
WILLMAR	1	1,088.89	18,130	16.65
DISTRICT TOTAL	**2**	**1,798.89**	**$34,105**	**$18.96**
		METRO EAST		
COTTAGE GROVE	1	12633.33	$170,550	$13.50
HASTINGS	1	366.67	8,250	22.50
INVER GROVE HEIGHTS	1	58.33	709	12.15
LAKEVILLE	1	1,096.11	11,838	10.80
ROSEVILLE	2	814.66	11,302	13.87
ST. PAUL	3	1,869.11	36,969	19.78
SOUTH ST. PAUL	1	214.44	3,686	17.19
STILLWATER	3	70.55	1,779	25.22
WEST ST. PAUL	1	56.22	789	14.03
WHITE BEAR LAKE	3	2,527.22	36,568	14.47
DISTRICT TOTAL	**20**	**19,706.64**	**$282,440**	**$14.33**

		DISTRICT TOTALS		
DISTRICT 1	11	18,411.24	$277,120	$15.05
DISTRICT 2	6	6,610.77	142,655	21.58
DISTRICT 3	9	12,712.01	169,267	13.32
DISTRICT 4	3	520.00	9,405	18.09
METRO-WEST	34	61,270.65	1,077,737	17.59
DISTRICT 6	11	9,135.01	154,950	16.96
DISTRICT 7	5	4,559.22	83,295	18.27
DISTRICT 8	2	1,798.89	34,105	18.96
METRO-EAST	20	19,706.64	282,440	14.33
STATE TOTALS	**101**	**134,724.43**	**$2,230,974**	**$16.56**

SIDEWALK CONSTRUCTION #2521



NEEDS YEAR	NO. OF CITIES	QUANTITY	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5-YEAR AVERAGE CONTRACT PRICE
1986	48	103,377	$1,446,980	$14.00	$14.00	$13.09
1987	51	79,756	1,126,616	14.13	14.50	13.42
1988	40	94,423	1,376,749	14.58	14.50	13.90
1989	62	159,205	2,150,360	13.51	14.00	13.90
1990	54	125,748	1,639,735	13.04	14.00	13.85
1991	60	179,115	2,514,996	14.04	14.00	13.86
1992	62	141,946	2,097,863	14.78	14.50	13.99
1993	55	119,082	1,767,834	14.85	15.00	14.04
1994	56	89,662	1,501,608	16.75	16.00	14.69
1995	49	134,724	2,230,974	16.56		15.40

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 1995 NEEDS STUDY IS PER SQ. YD. **$16.00**

STORM SEWER, LIGHTING AND SIGNAL NEEDS COSTS

NEEDS YEAR	STORM SEWER ADJUSTMENT (Per Mile)	STORM SEWER CONSTRUCTION (Per Mile)	LIGHTING (Per Mile)	SIGNALS (Per Mile)
1983	$62,000	$196,000	$2,000	$10,000
1984	62,000	98,000 *	2,000	10,000
1985	62,000	0 *	2,000	10,000
1986	62,000	196,000 *	2,000	10,000
1987	62,000	196,000 *	2,000	12,000
1988	62,000	196,000 *	16,000	15,000
1989	62,000	196,000 *	16,000	15,000-45,000
1990	62,000	196,000	16,000	15,000-45,000
1991	62,000	196,000	16,000	18,750-75,000
1992	62,000	199,500	20,000	20,000-80,000
1993	64,000	206,000	20,000	20,000-80,000
1994	67,100	216,500	20,000	20,000-80,000
1995				

* Years that "After the Fact Needs" were in effect. 1986 to 1989 price was used only for needs purposes.

MN\DOT'S HYDRAULIC OFFICE RECOMMENDED PRICES FOR 1995:

	Storm Sewer. Adjustment	Storm Sewer Construction
1995	$69,100	$223,000

SUBCOMMITTEE'S RECOMMENDED PRICES FOR 1995:

	Storm Sewer. Adjustment	Storm Sewer Construction	Lighting	Signals
1995	$69,100	$223,000	$20,000	$80,000

RAILROAD CROSSINGS NEEDS COSTS

NEEDS YEAR	SIGNS (Per Unit)	PAVEMENT MARKING	SIGNALS (Low Speed) (Per Unit)	SIGNALS & GATES (High Speed) (Per Unit)	RUBBERIZED MATERIAL (Per Ft.)
1983	$300		$65,000	$95,000	
1984	300		65,000	95,000	
1985	300		65,000	95,000	
1986	300		65,000	95,000	
1987	300		65,000	95,000	
1988	300		65,000	95,000	$700
1989	300		70,000	99,000	700
1990	400		75,000	110,000	750
1991	500		80,000	110,000	850
1992	600	$750	80,000	110,000	900
1993	600	750	80,000	110,000	900
1994	800	750	80,000	110,000	750
1995					

MN\DOT'S RAILROAD OFFICE RECOMMENDED PRICES FOR 1995:

	Signs	Pavement Marking	Signals	Sig. & Gates	Rub. Mat.
1995	$800	$750	$80,000	$110,000	$750

SUBCOMMITTEE'S RECOMMENDED PRICES FOR 1995:

1995	$800	$750	$80,000	$110,000	$750

DEPARTMENT : TRANSPORTATION
Office of Bridges and Structures
Waters Edge Building
1500 West County Road B2
Roseville, Minnesota 55113-3105

STATE OF MINNESOTA
Office Memorandum

DATE : March 7, 1995

TO : K. E. Straus
State Aid Needs Unit

FROM : D. V. Halvorson
Hydraulics Engineer

PHONE : 582-1106

SUBJECT : State Aid Storm Sewer Construction Costs for 1994

We have analyzed the State Aid storm sewer construction costs for 1994 and find that for planning and needs purposes, a figure of approximately $223,000 per mile can be used. For Storm sewer adjustments, we suggest approximately $69,100 per mile.

STATE OF MINNESOTA

DEPARTMENT OF TRANSPORTATION
MS 470, Transportation Building

Office Memorandum

TO: Kenneth Straus
Highway Needs Unit

DATE: March 3, 1995

FROM: Robert G. Swanson, Director
Railroad Administration

PHONE: 296-2472

SUBJECT: Projected Railroad Grade Crossing Improvements - Cost for 1995

We have projected 1995 costs for railroad-highway work at grade crossing improvements. For planning purposes, we recommend using the following figures:

Railroad Grade Crossings:		
Signals (Single Track - Low Speed)*		
(Average Price)	per system	$60-80,000.00
Signals and Gates:		
(Multiple Track - High & Low Speed)** (Average Price)	per System	$90-110,000.00
Signs (Advance warning signs & crossbucks	per Crossing	$800.00
Pavement Markings		
(Tape)	per Crossing	$5,500.00
(Paint)	per Crossing	$750.00
Crossing Surfaces: (Rubber Crossing Surface) Complete reconstruction of the crossing. Labor and Materials	per track ft	$750.00

* Modern signals with motion sensors - signals are activated when train enters electrical circuit - deactivated if train stops before reaching crossing.

** Modern signals with grade crossing predictors - has capabilities in (*) above, plus ability to gauge speed and distance of train from crossing to give constant 20-25 second warning of approaching trains traveling from 5 to 80 MPH.

As part of any project in the vicinity of railroad crossings, a review of advance warning signs should be conducted. In addition, pavement markings (RxR, STOP BAR, and NO PASSING STRIPE), if required, should be installed.

We also recommend that projects are not designed so that they start or end at railroad crossings. A project should be carried through the crossing area so that the crossing does not become the transition zone between two different roadway sections or widths.

1994 BRIDGE CONSTRUCTION COSTS

Bridges 0-149 Feet

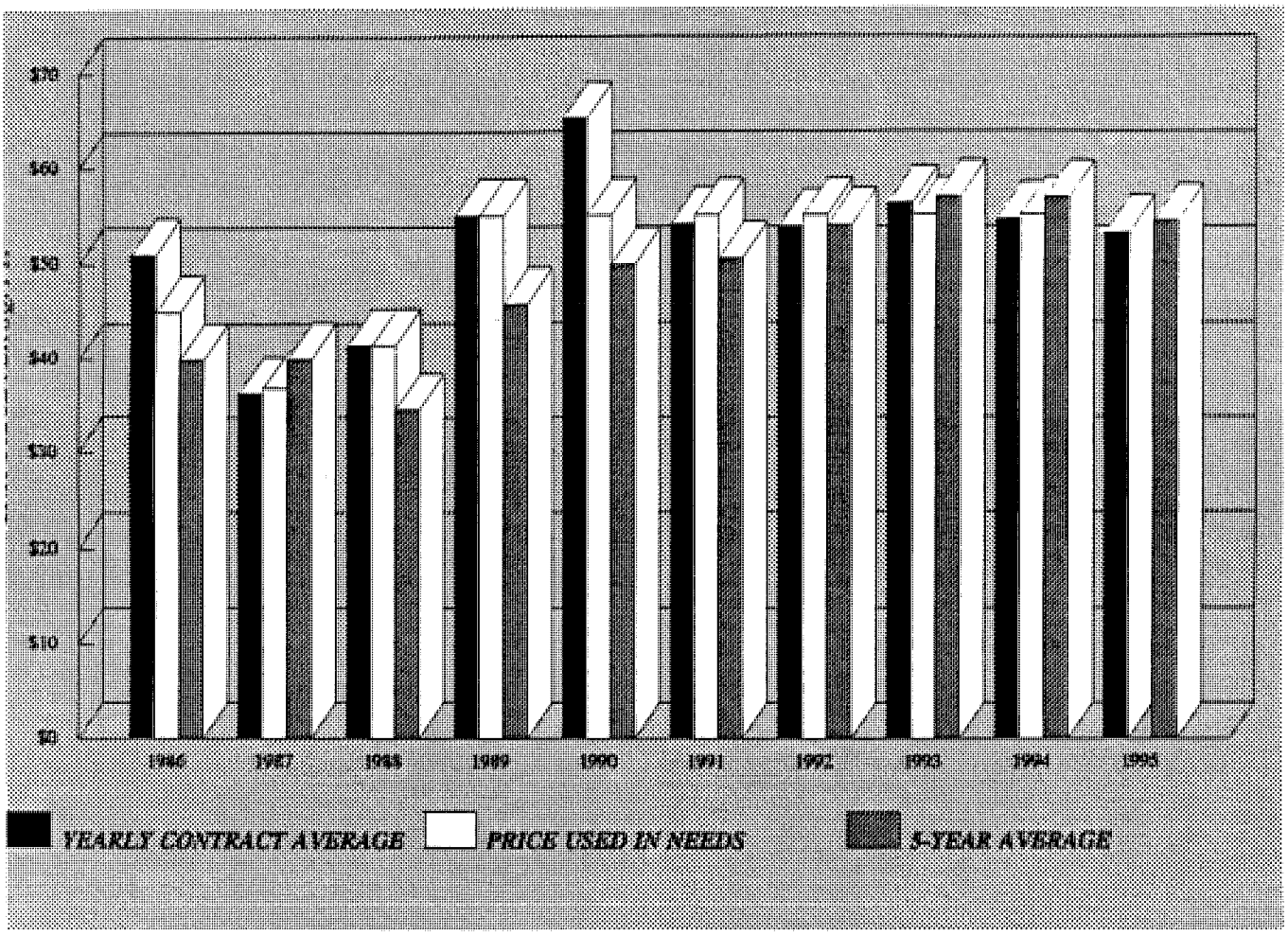
BRIDGE NUMBER	PROJECT NUMBER	DECK AREA	BRIDGE COST	COST SQ. FT.	LENGTH
07562	07-598-18	4,134	$179,775	$43.49	117.00
07567	07-599-28	2,757	167,014	60.58	88.00
13050	1306-13005 *	4,915	225,450	45.87	103.83
23550	23-628-06	5,065	197,964	39.08	107.00
25576	25-599-45	4,077	177,550	43.55	130.10
27680	152-102-10	8,280	450,451	54.40	138.00
31535	31-612-07	4,968	234,312	47.16	124.21
32547	32-599-62	3,200	131,755	41.17	100.00
34026	3407-34026 *	3,704	259,535	70.07	69.33
40514	40-603-11	4,013	229,025	57.07	109.67
43525	43-599-12	2,352	104,494	44.43	65.30
50573	50-599-56	3,396	186,534	54.93	106.10
51524	51-630-14	3,727	193,341	51.88	94.61
55501	159-112-04	5,140	170,072	33.09	81.17
55551	55-636-01	8,000	393,352	49.17	101.69
57508	57-618-02	2,026	121,985	60.21	51.50
57510	57-599-12	1,629	150,699	92.51	52.00
57515	57-599-13	1,629	158,108	97.06	52.00
59529	59-598-13	2,584	138,770	53.70	76.00
60535	60-599-71	1,725	175,277	101.61	48.80
60536	60-599-109	1,473	144,888	98.36	47.02
63510	63-610-02	5,006	273,889	54.71	127.28
66526	66-644-02	8,788	412,292	46.92	140.40
69594	69-648-24	5,236	267,590	51.11	85.84
69610	69-620-03	4,951	280,630	56.68	104.60
72532	72-599-28	3,553	170,630	48.02	131.00
74535	74-612-21	4,434	284,867	64.25	93.67
83528	83-599-31	2,160	107,740	49.88	72.00
83530	83-599-34	2,880	189,163	65.68	96.00
83535	83-599-43	2,742	161,737	58.99	87.50
83536	83-627-05	3,036	131,058	43.17	66.00
87571	87-639-03	3,146	157,071	49.93	80.00
STATE AID PROJECTS		116,107	$6,142,033	$52.90	Average
* MN/DOT PROJECTS		8,619	$484,985	$56.27	Average
TOTAL	32	124,726	$6,627,018	$53.13	AVERAGE

Railroad Bridges

BRIDGE NUMBER	PROJECT NUMBER	DECK AREA	BRIDGE COST	COST LIN. FT.	LENGTH
NO RAILROAD BRIDGES LET IN 1994					

BRIDGE COST

0-149 FEET



NEEDS YEAR	NUMBER OF PROJECTS	DECK AREA	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5-YEAR AVERAGE CONTRACT PRICE
1986	29	*	*	$51.00	$45.00	$40.00
1987	41	145,094	$5,281,503	36.40	37.00	40.08
1988	22	73,683	3,057,881	41.50	41.50	34.78
1989	11	35,733	1,966,077	55.02	55.00	45.78
1990	42	214,557	14,003,285	65.27	55.00	49.84
1991	37	136,770	7,472,265	54.09	55.00	50.46
1992	39	147,313	7,929,250	53.83	55.00	53.94
1993	38	190,400	10,709,785	56.25	55.00	56.89
1994	49	208,289	11,362,703	54.55	55.00	56.80
1995	32	124,726	6,627,018	53.13		54.37

* Information unavailable

BCOMMITTEE'S RECOMMENDED PRICE FOR THE 1995 NEEDS STUDY IS $55.00
I SQ. FT.

1994 BRIDGE CONSTRUCTION COSTS

Bridges 150-499 Feet

	BRIDGE NUMBER	PROJECT NUMBER		DECK AREA	BRIDGE COST	COST SQ. FT.	LENGTH
	03509	03-622-14		8,274	$488,163	$59.00	174.97
	07032	0712-07032	*	23,060	861,089	37.34	358.91
	08003	0802-08003	*	20,910	1,134,572	54.26	495.90
	08529	148-080-01		9,258	344,279	37.19	189.58
	11005	1103-11005	*	11,729	630,971	53.80	222.00
	19045	1908-19045	*	20,302	1,124,287	55.38	274.19
	25018	2514-25018	*	18,840	868,782	46.11	415.58
	27856	2781-27856	*	14,957	1,006,858	67.32	238.35
	27860	2781-27860	*	17,496	1,462,518	83.59	312.18
	27981	2781-27981	*	13,708	1,203,843	87.82	233.58
	27998	2781-27998	*	10,045	907,348	90.33	300.60
	47528	47-599-17		5,552	239,101	43.07	154.20
	49035	4903-49035	*	17,947	812,621	45.28	180.67
	55037	5502-55037	*	14,284	808,720	56.62	260.50
	70008	7005-70008	*	10,030	486,358	48.49	217.23
	70037	7005-70037	*	8,191	785,921	95.95	179.50
	70038	7005-70038	*	8,635	797,172	92.32	179.50
	70523	70-618-19		16,910	1,370,258	81.03	296.47
	70524	70-618-20		8,740	1,219,740	139.56	197.54
	70525	70-618-21		20,000	1,457,785	72.89	452.81
	70526	70-618-22		22,720	1,613,392	71.01	481.00
	70527	70-618-23		8,447	399,433	47.29	191.25
	70528	70-618-24		12,096	556,357	46.00	191.25
	70529	70-618-25		14,790	631,327	42.69	231.68
	70530	70-618-26		10,232	458,323	44.79	231.68
	79541	79-598-09		11,124	696,883	62.65	291.83
	84520	84-628-04		15,851	747,892	47.18	403.00
**	99147	2774-99147	*	7,840	196,417	25.05	206.31
	Total	28		381,968	$23,310,410	$61.03	AVERAGE
	Total w/o Temp. Brdgs.	27		374,128	$23,113,993	$61.78	AVERAGE
	STATE AID PROJECTS			163,994	$10,222,933	$62.34	AVERAGE
	* MN/DOT PROJECTS			217,974	$13,087,477	$60.04	AVERAGE

** Temporary Bridge

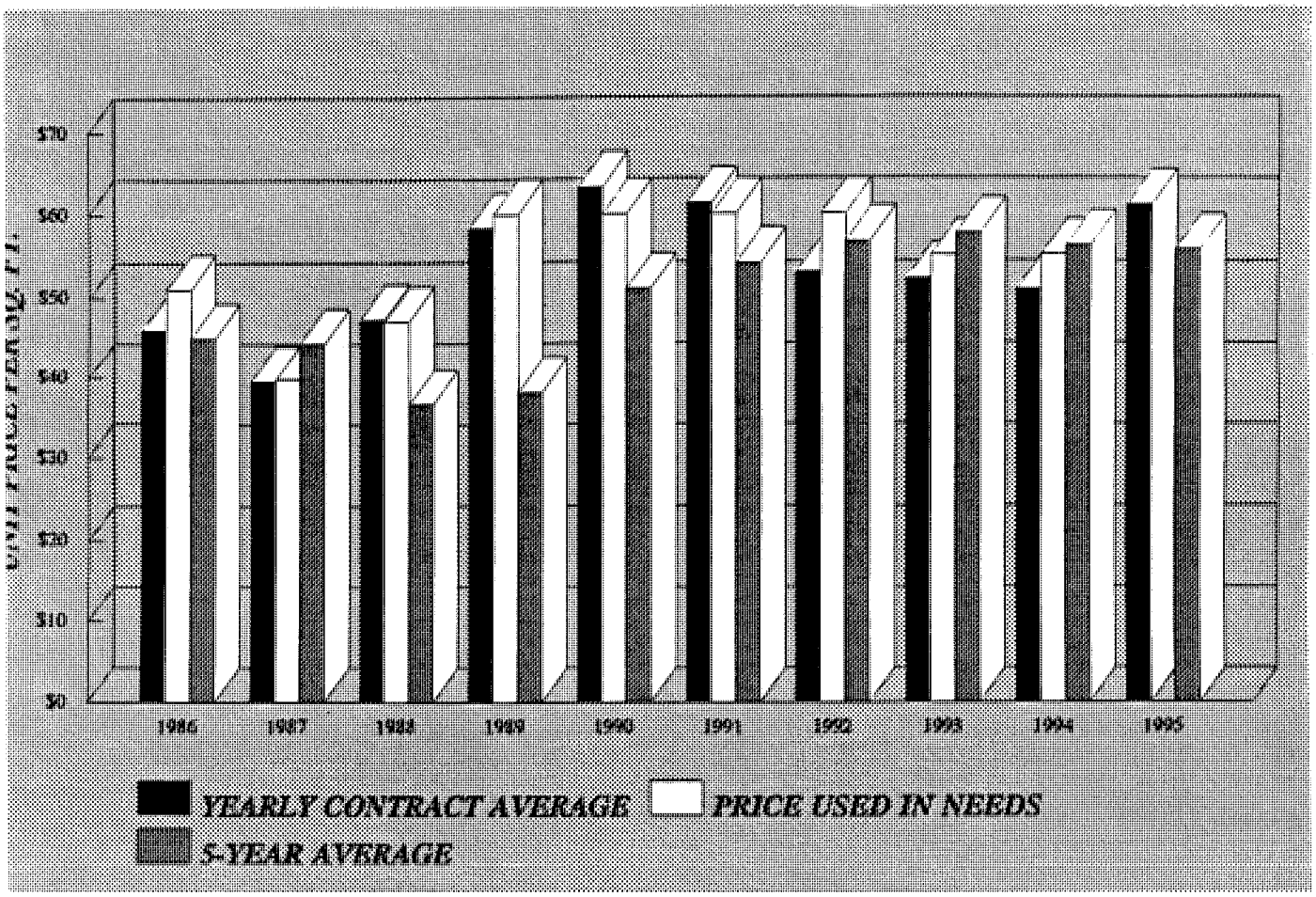
WITHOUT TEMPORARY BRIDGES				
ALL PROJECTS	374,128	$23,113,993	$61.78	AVERAGE

Bridges 500 Feet and Over

BRIDGE NUMBER	PROJECT NUMBER		DECK AREA	BRIDGE COST	COST SQ. FT.	LENGTH
36022	3604-36022	*	25,008	$1,699,931	$67.98	593.08
05011A, B	0509-05011A,B	*	149,983	7,895,410	52.64	1710.76
Total	2		174,991	$9,595,341	$54.83	AVERAGE
NO STATE AID PROJECTS						
* MN/DOT PROJECTS	174,991		$9,595,341	$54.83	AVERAGE	

BRIDGE COST

150-499 FEET



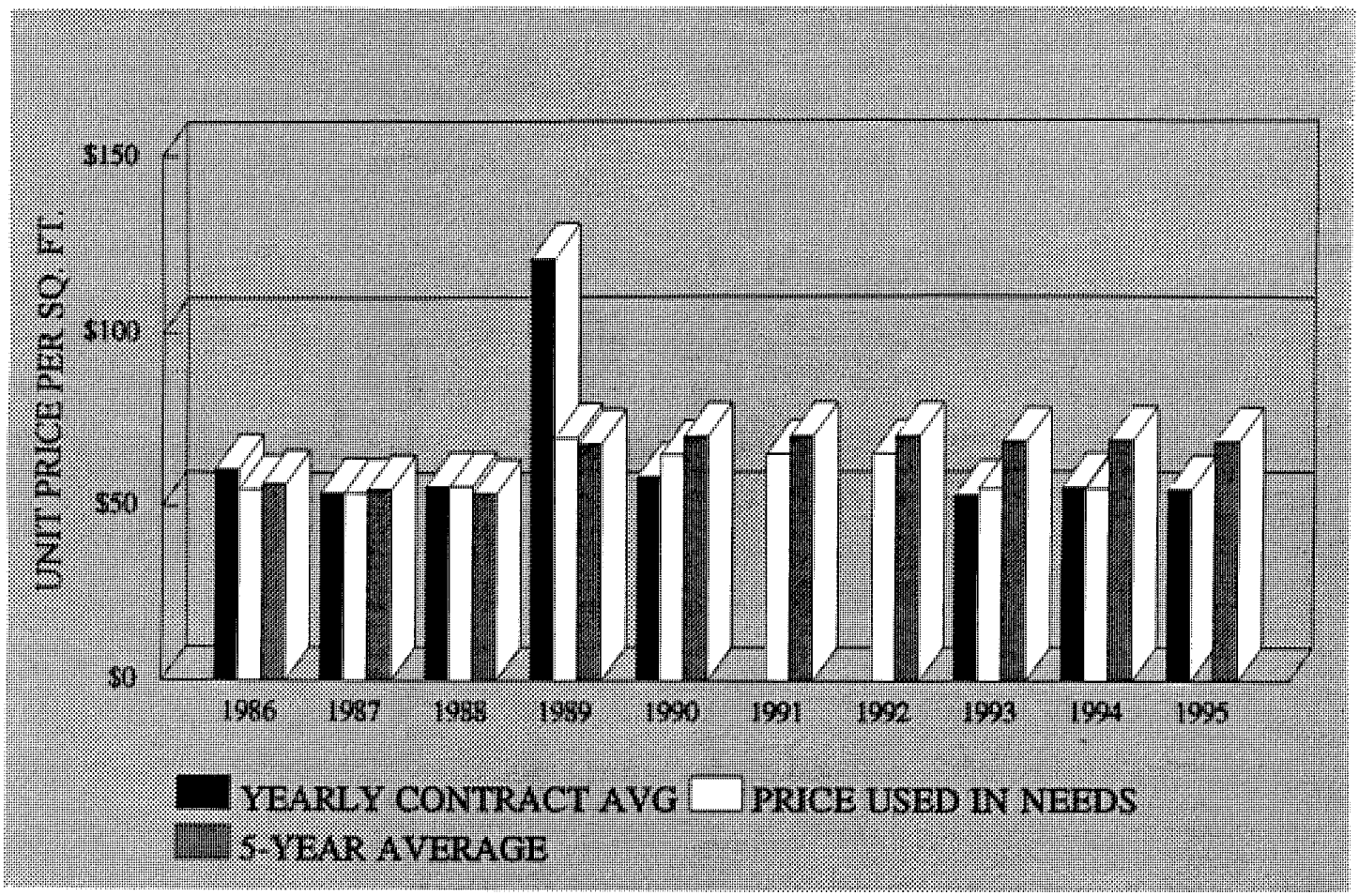
NEEDS YEAR	NUMBER OF PROJECTS	DECK AREA	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5-YEAR AVERAGE CONTRACT PRICE
1986	19	*	*	$46.00	$51.00	$45.00
1987	6	49,899	$1,979,192	39.66	40.00	44.33
1988	10	83,149	3,932,729	47.30	47.00	36.79
1989	11	116,378	6,796,566	58.40	60.00	38.27
1990	25	418,376	26,483,631	63.30	60.00	50.93
1991	27	368,709	22,167,571	61.33	60.00	54.00
1992	24	331,976	17,582,542	52.96	60.00	56.66
1993	31	421,583	21,987,208	52.15	55.00	57.63
1994	29	307,611	15,619,506	50.78	55.00	56.10
1995	28	381,968	23,310,410	61.03		55.65

* Information unavailable

BCOMMITTEE'S RECOMMENDED PRICE FOR THE 1995 NEEDS STUDY IS R SQ. FT. **$55.00**

BRIDGE COST

500 FEET AND OVER



NEEDS YEAR	NUMBER OF PROJECTS	DECK AREA	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5-YEAR AVERAGE CONTRACT PRICE
1986	3	*	*	61.00	55.00	56.60
1987	1	29,800	$1,612,847	54.12	54.00	55.02
1988	1	25,942	1,453,694	56.04	56.00	53.83
1989	8	335,830	40,615,626	120.94	70.00	68.02
1990	13	684,812	40,178,274	58.67	65.00	70.15
1991	0	0	0	0	65.00	70.15
1992	0	0	0	0	65.00	70.15
1993	6	245,572	13,068,106	53.21	55.00	68.60
1994	3	75,425	3,959,504	55.53	55.00	68.88
1995	2	174,991	9,595,341	54.83		68.64

* Information unavailable

The five year average only includes years in which bridges were constructed.

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 1995 NEEDS STUDY IS PER SQ. FT. **$55.00**

ANNUAL MAINTENANCE NEEDS COST

Used only for needs purposes.

The maintenance prices below are used only in the M.S.A.S. needs study. The total maintenance needs based on these costs for 1994 were $15,758,786 and are used only in the money needs allocation.

For example, An urban road segment with 2 traffic lanes, 2 parking lanes, over 1,000 traffic, storm sewer and one traffic signal would receive $7920 in maintenance needs per mile.

EXISTING FACILITIES ONLY

	1994 NEEDS PRICES		SUBCOMMITTEE SUGGESTED PRICES		SCREENING BOARD RECOMMENDED PRICES	
	Under 1000 ADT	Over 1000 ADT	Under 1000 ADT	Over 1000 ADT	Under 1000 ADT	Over 1000 ADT
Traffic Lane Per Mile	$1,320	$2,200	$1,320	$2,200		
Parking Lane Per Mile	1,320	1,320	1,320	1,320		
Median Strip Per Mile	440	800	440	800		
Storm Sewer Per Mlle	440	440	440	440		
Per Traffic Signal	440	440	440	440		
Normal M.S.A.S. Streets Minimum Allowance Per Mile Unlimited Segments:	4,400	4,400	4,400	4,400		
Combination Routes Minimum Allowance Per Mile Limited Segments:	2,200	2,200	2,200	2,200		

"Parking Lane Per Mile" shall never exceed two lanes, and is obtained from the following formula:
(Existing surface width minus the # of traffic lanes x 12) / 8 = # of parking lanes.

Existing # of Traffic lanes	Existing Surface Width	# of Parking Lanes for Maintenance Computations
2 Lanes	less than 32'	0
	32' - 39'	1
	40' & over	2
4 Lanes	less than 56'	0
	56' - 63'	1
	64' & over	2

A TEN YEAR HISTORY OF THE ANNUAL MAINTENANCE NEEDS COSTS

(COMPUTED ON EXISTING MILEAGE ONLY)

Year	Traffic Lane Per Mile		Parking Lane Per Mile		Median Strip Per Mile		Storm Sewer Per Mile		Per Traffic Signal		Minimum Maintenance Allowance Per Mile	
	Under 1000 ADT	Over 1000 ADT	Under 1000 ADT	Over 1000 ADT	Under 1000 ADT	Over 1000 ADT	Under 1000 ADT	Over 1000 ADT	Under 1000 ADT	Over 1000 ADT	Under 1000 ADT	Over 1000 ADT
1985	$300	$500	$100	$100	$100	$200	$100	$100	$100	$100	$1,000	$1,000
1986	300	500	100	100	100	200	100	100	100	100	1,000	1,000
1987	300	500	100	100	100	200	100	100	100	100	1,000	1,000
1988	600	1,000	200	200	200	400	200	200	400	400	2,000	2,000
1989	1,200	2,000	1,200	1,200	400	800	400	400	400	400	4,000	4,000
1990	1,200	2,000	1,200	1,200	400	800	400	400	400	400	4,000	4,000
1991	1,200	2,000	1,200	1,200	400	800	400	400	400	400	4,000	4,000
1992	1,200	2,000	1,200	1,200	400	800	400	400	400	400	4,000	4,000
1993	1,320	2,200	1,320	1,320	440	880	440	440	440	440	4,400	4,400
1994	1,320	2,200	1,320	1,320	440	880	440	440	440	440	4,400	4,400
1995												

THESE MAINTENANCE COSTS ARE FOR NEEDS PURPOSES ONLY.

MAINTENANCE COSTS FOR COMBINATION ROUTES ARE COMPUTED FOR THE WIDTH OUTSIDE THE TRAFFIC LANES.

ALL MAINTENANCE COSTS FOR COMMON BOUNDARY DESIGNATIONS AND APPROVED ONE WAY STREETS ARE COMPUTED USING THE LENGTH REPORTED IN THE NEEDS STUDY.

25 YEAR CONSTRUCTION NEEDS
FOR EACH INDIVIDUAL CONSTRUCTION ITEM

ITEM	1993 APPORTIONMENT NEEDS COST	1994 APPORTIONMENT NEEDS COST	DIFFERENCE	1994 % OF THE TOTAL
rading	$106,543,784	$109,007,200	$2,463,416	6.89%
pecial Drainage	3,359,937	3,746,113	386,176	0.24%
torm Sewer Adjustment	24,167,680	28,447,716	4,280,036	1.80%
torm Sewer Construction	167,152,520	175,756,865	8,604,345	11.11%
urb & Gutter Removal	13,414,846	13,877,889	463,043	0.88%
idewalk Removal	12,848,578	13,418,921	570,343	0.85%
avement Removal	34,033,081	35,159,117	1,126,036	2.22%
ree removal	6,312,075	6,636,175	324,100	0.42%
UBTOTAL GRADING	**$367,832,501**	**$386,049,996**	**$18,217,495**	**24.40%**
ravel Subbase #2211	66,608,124	67,401,341	793,217	4.26%
ravel Base #2211	57,616,742	59,345,150	1,728,408	3.75%
tuminous Base #2331	99,568,473	98,150,407	(1,418,066)	6.20%
UBTOTAL BASE	**$223,793,339**	**$224,896,898**	**$1,103,559**	**14.21%**
tuminous Surface #2331	2,692,052	2,788,569	96,517	0.18%
tuminous Surface #2341	197,065,268	194,124,647	(2,940,621)	12.27%
tuminous Surface #2361	52,090,774	49,595,895	(2,494,879)	3.13%
urface Widening	2,905,586	2,539,954	(365,632)	0.16%
UBTOTAL SURFACE	**$254,753,680**	**$249,049,065**	**($5,704,615)**	**15.74%**
avel Shoulders #2221	910,098	882,903	(27,195)	0.06%
UBTOTAL SHOULDERS	**$910,098**	**$882,903**	**($27,195)**	**0.06%**
urb and Gutter	80,068,021	82,093,943	2,025,922	5.19%
dewalk	96,936,585	111,256,592	14,320,007	7.03%
affic Signals	91,403,800	93,773,400	2,369,600	5.93%
reet Lighting	49,206,000	50,374,200	1,168,200	3.18%
taining Walls	16,233,658	15,041,958	(1,191,700)	0.95%
UBTOTAL MISCELLANEOUS	**$333,848,064**	**$352,540,093**	**$18,692,029**	**22.28%**
OTAL ROADWAY	**$1,181,137,682**	**$1,213,418,955**	**$32,281,273**	**76.68%**
idge	84,187,173	84,310,734	123,561	5.33%
ilroad Crossings	33,296,427	30,009,700	(3,286,727)	1.90%
aintenance	15,288,665	15,758,786	470,121	1.00%
gineering	233,751,990	238,993,105	5,241,115	15.10%
UBTOTAL OTHERS	**$366,524,255**	**$369,072,325**	**$2,548,070**	**23.32%**
OTAL	**$1,547,661,937**	**$1,582,491,280**	**$34,829,343**	**100.00%**

NOTES


OTHER
TOPICS

BOND ACCOUNT ADJUSTMENT

The charges for selling a bond eventually are paid by the city in the present method of computing the bond account adjustment and applying State Aid Projects. This happens, as in most bond sales, when the overhead costs are included in the bond principal payments and when State Aid Project or Projects are applied against the principal payments. I tried to illustrate the affect in example "A". In the example, it was necessary for the city to let and apply $30,000 more in State Aid projects to cover the overhead costs and eliminate a negative bond account adjustment. After evaluating how the bond account adjustment is made, I came to the conclusion that the overhead costs are paid by the city. The problem could be resolved if the adjustment would exclude the overhead costs that projects are applied against. Also in my review, I realized that the longer a city extends the principal payments, the greater reward a city receives with a larger bond account adjustment. This is illustrated in example "B" & "C". However, the city pays additional interest when the principal payments are extended over a longer period. The interest payments due for the year are annually set aside in the State Aid maintenance account and is not considered in the bond account adjustment.

FACTS ABOUT THE BOND ADJUSTMENT

1. Generally, the reason a city sells bonds is due to the lack of State Aid Funds to build a project. When bonds are sold to construct a project before State Aid funds are available from future apportionments, complete needs are lost sooner. Since the complete needs are lost sooner, they would be reinstated earlier after 20 years. The reason for the bond account adjustment is compensate for the earlier loss of needs and constructing the project ahead of schedule. A city lost complete needs sooner with a bond sale but as long as the city is paying the principal and interest, needs should annually increase until they concide as if they did not sell bonds.

2. Principal payments are paid from the construction account. This lowers the city's unencumbered construction balance adjustment, similarly if the city made a payment to the contractor. Principal payments do not directly affect needs.

3. Interest is paid from the maintenance account. No needs adjustment is made for this expenditure. Interest payments reduce the amount available for construction which should annually increase the needs. Annually a lower unencumbered construction balance adjustment would be made on the city's needs.

4. The present bond account adjustment is made on the remaining amount of principal due and applied toward a State Aid project. The present method rewards a city that extends the principal payments over a longer period of time. Example "B" versus "C"

UNAMORTIZED BOND ACCOUNT BALANCE

(Amount as of December 31, 1993)
(For Reference, see Bond Adjustment Resolution)

The average principal and interest on all Bond sales cannot exceed 50 percent of the last construction apportionment preceding the Bond sale
COLUMN B: Total Disbursements and Obligations: The amount of bond applied toward State Aid projects. A Report Of State Contract must b submitted by December 31 of the previous year to get credit for the expenditure.
COLUMN C: Unencumbered Bond Balance Available: The amount of the bond not applied toward a State Aid project.
COLUMN D: Unamortized Bond Balance: The remaining bond principal to be paid on the issue. This payment is made from the city's construction account. Interest payments are made from the maintenance account and are not reflected in this chart.

The bond account adjustment is computed by using two steps.
Step 1: (A minus B) Amount of issue minus disbursements = unencumbered balance.
Step 2: (D minus C minus E) Unamortized bond balance minus unencumbered balance = bond account adjustment.

Municipality	Date of Issue	(A) Amount of Issue	(B) Total Amount Applied Toward State Aid Projects	(C) (A Minus B) Amount Not Applied Toward State Aid Projects	(D) Remaining Amount of Principal To Be Paid	(E) Off System Disburse-ment	(D minus C minus E) Bond Account Adjustment
Andover	9-01-84	$510,000	$510,000	$0	$60,000		$60,000
Andover	8-01-88	500,000	500,000	0	250,000		250,000
Anoka	7-01-86	985,000	552,765	432,235	280,000		(152,235)
Apple Valley	12-01-74	100,000	100,000	0	10,000		10,000
Apple Valley	8-01-79	875,000	875,000	0	490,000		490,000
Apple Valley	09-09-91	1,730,000	1,730,000	0	1,615,000	779,446	835,554
Brooklyn Center	9-01-91	3,000,000	3,000,000	0	2,750,000		2,750,000
Cloquet	12-01-93	835,000	741,417	93,583	835,000		741,417
Coon Rapids	8-01-90	1,935,000	1,907,602	27,398	775,000		747,602
Cottage Grove	5-01-77	560,000	560,000	0	115,000		115,000
Eagan	7-01-86	3,000,000	3,000,000	0	1,725,000		1,725,000
East Grand Forks	9-01-65	325,000	325,000	0	30,000		30,000

Municipality	Date of Issue	(A) Amount of Issue	(B) Total Amount Applied Toward State Aid Projects	(C) (A Minus B) Amount Not Applied Toward State Aid Projects	(D) Remaining Amount of Principal To Be Paid	(E) Off System Disburse-ment	(D Minus C) Bond Account Adjustment
Eden Prairie	12-01-82	$1,950,000	$1,950,000	$0	$50,000		$50,000
Eden Prairie	11-10-91	370,000	261,663	108,337	370,000		261,663
Eden Prairie	07-01-92	1,940,000	0	1,940,000	1,190,000		(750,000)
Elk River	06-01-92	1,095,000	878,002	216,998	975,000		758,002
Falcon Heights	04-21-80	170,000	142,012	27,988	0		(27,988)
Little Canada	10-01-81	225,000	225,000	0	30,000		30,000
Little Canada	11-01-93	315,000	300,000	15,000	315,000		300,000
Maple Grove	7-16-79	1,100,000	1,080,299	19,701	0		(19,701)
Marshall	7-01-81	310,000	235,496	74,504	0		(74,504)
Mendota Heights	3-01-75	360,000	360,000	0	40,000		40,000
North Mankato	6-01-86	550,000	550,000	0	165,000		165,000
Oakdale	11-10-92	453,181	453,181	0	412,343		412,343
Oakdale	11-23-93	887,640	637,392	250,248	887,640		637,392
Ramsey	03-13-91	500,000	500,000	0	300,000		300,000
Roseville	12-01-85	2,225,000	2,225,000	0	1,550,000		1,550,000
St. Cloud	07-01-82	390,000	390,000	0	140,000		140,000
St. Cloud	11-01-92	1,940,000	1,755,000	185,000	1,940,000		1,755,000
Savage	10-01-87	875,000	875,000	0	400,000		400,000
Woodbury	11-12-75	263,000	262,050	950	0		(950)
TOTAL		**$30,273,821**	**$26,881,879**	**$3,391,942**	**$17,699,983**	**$779,446**	**$13,528,595**

EXAMPLE "A"

a City sells a $1,000,000 bond issue and incurrs a selling fee of $30,000, the Bonding ompany and Underwriters include the $30,000 in the total bond sale.

he selling fees of $30,000 are deducted from the $1,000,000 total bond issue and the City ceives $970,000 from the bond sale. But when the bond account adjustment is made, the city is to apply $1,000,000 of State Aid Projects toward the bond. This means that the city needs l additional $30,000 of State Aid projects which results in a $30,000 cost to the city.

hen the City receives $1,000,000 for the principal payments made by State Aid Finance, the ity recovers the $30,000 selling fees.

verhead costs for selling the bond are paid as part of the principal payments. The overhead sts are deducted from the total issue amount that the city receives from the bond sale. The ty must apply the $1,000,000 of State Aid projects toward the bond which includes the selling es (overhead costs).

onsiderations should be given for modification of the present bond account adjustment.

If the present adjustment is kept, consideration should be given to deduct the overhead cost om the adjustment so that it does not affect the city negatively.

EXAMPLE "B" & "C"

example "B", the City sold a $1,000,000 bond and extended the interest and principal yments for 20 years. The result of the bond account adjustment for this city received proximately $251,370 gain in apportionment.

example "C", the City sold a $1,000,000 bond and extended the interest and principal yments for 10 years. The result of the bond account adjustment for this city received proximately $119,070 gain in apportionment.

ie apportionment difference for extending the payment schedule for another 10 years resulted a $132,300 gain minus any additional interest.

ould consideration be given for modification of the bond account adjustment?

Modify the adjustment to consider the needs loss when constructing the State Aid projects ead of schedule without considering the principal payment.

The present method rewards city's that extend the length of time that pricipal is paid as own in the example "B' & "C".

Consider the interest as part of the bond account adjustment and the cost of the project.

EXAMPLE "A"

Only principal is considered in this example.

The present bond adjustment requires that State Aid projects be applied against the total bond issue amount which normally includes the overhead costs. In this example, it's necessary for the city to let and apply $30,000 more in State Aid projects to cover the overhead costs and avoid a negative bond account adjustment.

Should the selling fees (overhead costs) be deducted from the bond amount of issue and reduce the amount that State Aid projects are applied against?

PUBLIC	CITY	BONDING COMPANY & UNDERWRITERS
-$1,000,000 Buys Bond		+$1,000,000 Amount Received from Bond Sale
	+$970,000 Amount from Bonding Co.	-$970,000 Paid to City
	-$970,000 Paid Contractor for State Aid Contract	
	+$1,000,000 Principal Payments Received from State Aid Finance	
	-$1,000,000 Principal Paid to Underwriters	+$1,000,000 Principal Received from City
+$1,000,000 Principal Received from Underwriters		-$1,000,000 Principal Paid to Bond Holders
$0 Net Total	-$0 Net Total	+$30,000 Net Total

CITY'S BOND ACCOUNT ADJUSTMENT

+$1,000,000 Principal Paid	-$970,000 Amount Paid Contractor for State Aid Project & applied against Bond	-$30,000 Bond Account Adjustment

The average principal and interest on all Bond sales cannot exceed 50 percent of the last construction apportionment preceding the Bond sale.
COLUMN B: Total Disbursements and Obligations: The amount of bond applied toward State Aid projects. A Report Of State Contract must be submitted by December 31 of the previous year to get credit for the expenditure.
COLUMN C: Unencumbered Bond Balance Available: The amount of the bond not applied toward a State Aid project.
COLUMN D: Unamortized Bond Balance: The remaining bond principal to be paid on the issue. This payment is made from the city's construction account. Interest payments are made from the maintenance account and are not reflected in this chart.

The bond account adjustment is computed by using two steps.
Step 1: (A minus B) Amount of issue minus disbursements = unencumbered balance.
Step 2: (D minus C minus E) Unamortized bond balance minus unencumbered balance = bond account adjustment.

Date of Issue 9-01-94 Municipality	Date of Principal Payment	(A) Amount of Issue	(B) Total Amount Applied Toward State Aid Projects	(C) (A Minus B) Amount Not Applied Toward State Aid Projects	(D) Remaining Amount of Principal To Be Paid	(E) Off System Disburse-ment	(D minus C minus E) Bond Account Adjustment
SAMPLE	1994	$1,000,000	$1,000,000	$0	$950,000		$950,000
	1995			0	900,000		900,000
	1996			0	850,000		850,000
	1997			0	800,000		800,000
	1998			0	750,000		750,000
	1999			0	700,000		700,000
	2000			0	650,000		650,000
	2001			0	600,000		600,000
	2002			0	550,000		550,000
	2003			0	500,000		500,000
	2004			0	450,000		450,000
	2005			0	400,000		400,000
	2006			0	350,000		350,000
	2007			0	300,000		300,000
	2008			0	250,000		250,000
	2009			0	200,000		200,000
	2010			0	150,000		150,000
	2011			0	100,000		100,000
	2012			0	50,000		50,000
	2013			0	0		0
			Total		$9,500,000		$9,500,000

APPROXIMATE GAIN IN APPORTIONMENT AMOUNT - Based on 1995 Apportionment - $9,500,000 times .026461197 = $251,370

EXAMPLE "C " - UNAMORTIZED BOND ACCOUNT BALANCE

Municipality	Date of Issue 9-01-94 / Date of Principal Payment	(A) Amount of Issue	(B) Total Amount Applied Toward State Aid Projects	(C) (A Minus B) Amount Not Applied Toward State Aid Projects	(D) Remaining Amount of Principal To Be Paid	(E) Off System Disburse-ment	(D minus C minus E) Bond Account Adjustment
SAMPLE	1994	$1,000,000	$1,000,000	$0	$900,000		$900,000
	1995			0	800,000		800,000
	1996			0	700,000		700,000
	1997			0	600,000		600,000
	1998			0	500,000		500,000
	1999			0	400,000		400,000
	2000			0	300,000		300,000
	2001			0	200,000		200,000
	2002			0	100,000		100,000
	2003			0	0		0
				Total	$4,500,000		$4,500,000

APPROXIMATE GAIN IN APPORTIONMENT AMOUNT - Based on 1995 Apportionment - $4,500,000 times .026461197 = $ 119,070

DIFFERENCE
$251,370
119,070
$132,300

NEEDS COULD BE COMPUTED ON A "AFTER THE FACT" BASIS BY USING THE AMOUNT OF STATE AID PROJECTS APPLIED TOWARD THE BOND.

EXAMPLE: A $1,000,000 BOND WITH A 10 YEAR " AFTER THE FACT" NEEDS WOULD YIELD $10,000,000 IN NEEDS.
EXAMPLE: B $1,000,000 BOND WITH A 5 YEAR " AFTER THE FACT" NEEDS WOULD YIELD $5,000,000 IN NEEDS.

A. THE NEEDS RECEIVED WOULD BE SIMILAR AND EASIER TO UNDERSTAND.

B. ALL BONDS WOULD RECEIVE NEEDS ON THE SAME BASIS AND WOULD NOT AWARD CITIES THAT EXTEND THE PRINCIPAL PAYMENT SCHEDULE.

COMBINATION ROUTES

he Division of State Aid would like to eliminate the remaining 15.09 iles of dual designations. No requests for combination routes have been pproved for the last several years. After the disadvantages of these outes were explained to the city and/or county, some in the past few ears took the initiative and eliminated the dual designations.

lthough allowed by statute, the designation of combination routes are ot usually in the best interests of the city or the county. Mainly, oth the city and county use whole mileage to designate the route and eceive only a proportion of the needs.

tate Statute 162.02 subd.1 states in part:

'If a county state-aid highway is established over a center portion of a street in a city having a population of 5,000 or more, then the remaining portion of the street may be established as a municipal state-aid street.'

tate Statute 162.09 subd. 5 states:

'In the event that any county establishes and locates a county state-aid highway upon and over a center portion of a street within such city, the remaining portion of the street may be a municipal state-aid street.'

tate Statute 162.13 subd. 2 states in part:

When a county locates a county state-aid highway over a portion of a street in any such city and the remaining portion is designated as a municipal state-aid street only the construction and maintenance costs of the portion of the street other than the portions taken over by the county shall be included in the money needs of the city.

me of the problems and conflicts created are:

When the new needs program is rewritten, additional costs will be incurred for the necessary programming to handle the 15.09 miles. The needs study computation program would be greatly simplified and easier to maintain if these routes were eliminated.

Overall, dual designations reduce both county and city total system needs. Since the city and county receive a proportionate amount of needs, the total needs are reduced for both systems.

Both the city and county use whole mileage to designate the route. It would be to the advantage of both entities to have this mileage designated on only one system. The city or county would not have to utilize all the mileage from the dual designations to receive the same amount of needs.

The city can spend State Aid funds on a CSAH without a needs adjustment. If the present dual designations were designated as CSAH's and the city participated in some of the reconstruction costs, no needs would be lost by the city.

Duplicate needs updating is necessary. Both the city and county have to maintain the needs updating for the same roadway.

MSAS-CSAH COMBINATION ROUTES

	DISTRICT 1
St. Louis CSAH 103 Virginia MSAS 501	On 9th Ave West from Mud Lake Road to 9th Street North - 1.04 Miles
St. Louis CSAH 103 Virginia MSAS 502	On Mud Lake Road from 16th Ave West to 9th Ave West - 0.65 Miles
	DISTRICT 2
Polk CSAH 64 East Grand Forks MSAS 501	On 4th Street NW from Demers Ave to BN RR - 0.06 Miles
	DISTRICT 4
Otter Tail CSAH 1 Fergus Falls MSAS 502	On Union from Alcott to Vernon - 0.16 Miles
Otter Tail CSAH 1 Fergus Falls MSAS 501	On Cascade from Vernon to Summitt and on Summitt from Cascade to Friberg - 0.66 Miles
Otter Tail CSAH 25 Fergus Falls MSAS 501	On Cascade from 0.09 M S of St. Charles Ave to Vernon - 0.72 Miles
Otter Tail CSAH 92 Fergus Falls MSAS 503	On Fir from TH 59 to Friberg - 1.10 Miles
	METRO
Dakota CSAH 32 Inver Grove Hts MSAS 501	On 105th St E from 0.45 M W to TH 55/52 - 0.45 Miles
Dakota CSAH 38 Burnsville MSAS 501	On McAndrews and 138th St from CSAH 5 to E Lims of Burnsville - 2.87 Miles
Hennepin CSAH 8 Robbinsdale MSAS 516	On Broadway from CSAH 9 to North Limits Robbinsdale - 0.74 Miles
Hennepin CSAH 9 Robbinsdale MSAS 515	On Rockford Rd, 42nd Ave N, Lake Dr, and 45th Ave N from West Lims to East Lims Robbinsdale - 1.98 Miles
Hennepin CSAH 20 Edina MSAS 527	On Blake Rd and Interlachen Blvd from N Limits Edina to CSAH 158 - 1.99 Miles
	District 6
Olmsted CSAH 2 Rochester MSAS 502	On 14th St NE from 11th Ave NE to 0.07 M NE of 15th Ave NE - 0.32 Miles
Steele CSAH 1 Owatonna MSAS 502	On North St from CSAH 45 to Cedar Ave - 0.19 Miles
Steele CSAH 19 Owatonna MSAS 501	On Rose St from CSAH 45 to Oak Ave - 0.08 Miles
	District 7
Brown CSAH 13 New Ulm MSAS 501	On Center St From South Lims to TH 15/68 - 1.56 Miles
Brown CSAH 27 New Ulm MSAS 502	On Highland Ave from Center St to 0.5 M E of W Lims New Ulm - 0.56 Miles

A COUNTY ROAD TURNBACK CAN CREATE EXCESS MILEAGE

The State Statute allows County Road Turnback mileage to be above the city's 20% allowable mileage.

A County Road Turnback will quite likely create a city to be over-designated when its close to or are maximumized in MSAS mileage designations. The over-designation occurs when the County Road mileage is moved from Line 4 to the County Turnback mileage on line 8 of the Certification as shown between Example 1 & 2. When County Road mileage is removed from the city's basic mileage, it reduces the total that 20% is applied against and reduces the amount that a city can designate. The over-designation would not become evident until the following year's Certification of Mileage is completed. By Screening Board Resolution, the city can receive needs for new designations in the following year providing that a request is made by March 1 and a council resolution is provided by May 1. This allows any excess mileage to receive needs for that year and future years until that excess mileage is eliminated. This does not happen with CSAH mileage when it's considered a turnback because that mileage is not part of a city's basic mileage as defined in the following Municipal Screening Board resolution:

> The maximum mileage for Municipal State Aid Street designation shall be 20 percent of the municipality's basic mileage - which is comprised of the total improved streets less Trunk Highway, County State Aid Highways, and any Trunk Highway and/or County Road Turnbacks designated as excess Municipal State Aid mileage.
>
> The maximum mileage for Municipal State Aid Street designation shall be based on the Annual Certification of Mileage current as of December 31st of the preceding year. Submittal of a supplementary certification during the year shall not be permitted.

ome of the questions this raises are:

- Should a municipality be allowed to be recieve needs for the over-designated mileage?
- If only a portion of the mileage created the overage, which mileage should or should not receive needs?
- At what point should a city be required to revoke excess mileage as a result of a County Road Turnback?
- Should the Certification of Mileage be recalculated to determine if the County Road Turnback will create the city to be over-designated?

he Needs Study Subcommittee recommends that the needs of the excess mileage be reduced / 20% of the Turnback total needs.

EXAMPLE 1 - BEFORE COUNTY ROAD TURNBACK IS DESIGNATED

ANNUAL CERTIFICATION OF MILEAGE

SEE ENCLOSED RESOLUTION AND INSTRUCTIONS
*RECORD REVISIONS ON BACK OF CERTIFICATE

	Municipal Mileage as of Dec. 31, 1993				Revisions During Current Year (+ or -) *				Municipal Mileage as of Dec. 31, 1994			
	Non-Existing	Unimproved	Improved	Total	Non-Existing	Unimproved	Improved	Total	Non-Existing	Unimproved	Improved	Total
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
MILEAGE NOT CONSIDERED IN THE COMPUTATION OF BASIC MILEAGE												
1. Trunk Highways												
2. Trunk Highways Turnbacks (Designated as MSAS)												
3. County State Aid Highways (Exclude mileage designated as MSAS)												
4. County Highway Turnbacks (Designated as MSAS)			0								0	0
5. County Municipal State Aid Streets (Jointly designated - County State Aid & MSAS)												
6. Total Mileage of Line 1 Thru 5	Previous =		0		(+ or -) Adjustment =				Current =		0	
BASIC MILEAGE: MILEAGE CONSIDERED IN THE COMPUTATION OF ALLOWABLE MILEAGE												
7. Municipal State Aid Streets (Exclude Trunk and County Highway Turnbacks)			10								10	10
8. County Roads (Exclude mileage designated as MSAS)			5								5	5
9. Other Local Roads And Streets - not designated (Include T.H. & CSAH frontage roads)			35								35	35
10. Total Improved Basic Mileage (Total of line 7 + 8 + 9)	Previous =		50		(+ or -) Adjustment =		0		Current =		50	

11. Percentage Limitation Allowed by Statute — x 0.20

12. MAXIMUM MILEAGE ALLOWED FOR M.S.A.S. DESIGNATIONS (Col XI, Line 11 Times Line 10). — 10

13. Total Municipal State Aid Street Designated (Colum XII, Line 2 + 4 + 5 + 7). — 10

14. Total MSAS One-Way Street Mileage Included in Col. XII, Line 5 & 7. (Only if considered as 1/2 Mileage - per Screening Board approval) _____ Miles Divided By 2 = (-) 0

15. Total Miles of T.H. & County Turnbacks Designated as Msas Above 20% (Col. XII Line 2 & 4). (-) 0

16. Mileage designated MSAS - not including One-Way 1/2 Mileage, T.H. and C.R. Turnback mileage (Line 13 minus Line 14 & Line 15). — 10

17. Municipal State Aid Street Mileage Over/Under Maximum Allowed. (Line 12 minus line 16). — 0

I hereby certify that the total Improved Mileage (Col.XI. Line 6 + 10) in the Municipality of _____ as of December 31, 1994 is _____ Mile

ANNUAL CERTIFICATION OF MILEAGE

SEE ENCLOSED RESOLUTION AND INSTRUCTIONS
*RECORD REVISIONS ON BACK OF CERTIFICATE

	Municipal Mileage as of Dec. 31, 1994				Revisions During Current Year (+ or -) *				Municipal Mileage as of Dec. 31, 1995			
	Non-Existing	Unimproved	Improved	Total	Non-Existing	Unimproved	Improved	Total	Non-Existing	Unimproved	Improved	Total
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
MILEAGE NOT CONSIDERED IN THE COMPUTATION OF BASIC MILEAGE												
1. Trunk Highways												
2. Trunk Highways Turnbacks (Designated as MSAS)												
3. County State Aid Highways (Exclude mileage designated as MSAS)												
4. County Highway Turnbacks (Designated as MSAS)			0				+5				5	5
5. County Municipal State Aid Streets (Jointly designated - County State Aid & MSAS)												
6. Total Mileage of Line 1 Thru 5	Previous =				(+ or -) Adjustment =				Current =		5	
BASIC MILEAGE: MILEAGE CONSIDERED IN THE COMPUTATION OF ALLOWABLE MILEAGE												
7. Municipal State Aid Streets (Exclude Trunk and County Highway Turnbacks)			10								10	10
8. County Roads (Exclude mileage designated as MSAS)			5				-5				0	0
9. Other Local Roads And Streets - not designated (Include T.H. & CSAH frontage roads)			35								35	35
10. Total Improved Basic Mileage (Total of line 7 + 8 + 9)	Previous =		50		(+ or -) Adjustment =		-5		Current =		45	
11. Percentage Limitation Allowed by Statute										x	0.20	
12. MAXIMUM MILEAGE ALLOWED FOR M.S.A.S. DESIGNATIONS (Col XI, Line 11 Times Line 10).											9	
13. Total Municipal State Aid Street Designated (Colum XII, Line 2 + 4 + 5 + 7).										15		
14. Total MSAS One-Way Street Mileage Included In Col. XII, Line 5 & 7 . (Only if considered as 1/2 Mileage - per Screening Board approval)									Miles Divided By 2 = (-)			
15. Total Miles of T.H. & County Turnbacks Designated as Msas Above 20% (Col. XII Line 2 & 4).									(-)	5		
16. Mileage designated MSAS - not including One-Way 1/2 Mileage, T.H. and C.R. Turnback mileage (Line 13 minus Line 14 & Line 15).											10	
17. Municipal State Aid Street Mileage Over/Under Maximum Allowed. (Line 12 minus line 16).											-1.00	

I hereby certify that the total Improved Mileage (Col.XI. Line 6 + 10) in the Municipality of _____ as of December 31, 1995 is _____ Mile

Signed _____ Title _____ Date _____

A EXCHANGE OF TRUNK HIGHWAY TURNBACK FOR A CSAH WILL REQUIRE ADDITIONAL MILEAGE

When a former Trunk Highway Turnback designated as a MSA Street is exchanged for a CSAH that is not a turnback will require a city to loose the turnback mileage and will be necessary for the city to use its basic mileage (mileage within the city's 20% allowable) to designate the CSAH. For example, when 1 mile of turnback is exchanged for 1 mile of non-turnback mileage, the turnback mileage that is carried above 20% is lost by the city and in order to designate the former CSAH received from the county, the city must use 1 mile of their basic mileage. However, the city gains .2 mile by moving the former CSAH mileage to the basic mileage. This exchange will require the city use 1.8 miles to designate 1 mile.

The extra mileage required to designate occurs when the Turnback mileage is removed from Trunk Highway Turnbacks mileage on Line 2 and moved to County State Highway mileage on Line 3 and the former CSAH mileage is moved from Line 3 to Municipal State Aid Street mileage line 7 of the Certification as shown between Example 3 & 4.

The over-designation would not become evident until the following year's Certification of Mileage is completed. By Screening Board Resolution, the city can receive needs for new designations in the following year providing that a request is made by March 1 and a council resolution is provided by May 1. This allows any excess mileage to receive needs for that year and future years until that excess mileage is eliminated. This would also happen in the future with County Turnback mileage that is carried above 20% because that mileage is not part of the city's basic mileage as defined in the following Municipal Screening Board resolution:

> The maximum mileage for Municipal State Aid Street designation shall be 20 percent of the municipality's basic mileage - which is comprised of the total improved streets less Trunk Highway, County State Aid Highways, and any Trunk Highway and/or County Road Turnbacks designated as excess Municipal State Aid mileage.
>
> The maximum mileage for Municipal State Aid Street designation shall be based on the Annual Certification of Mileage current as of December 31st of the preceding year. Submittal of a supplementary certification during the year shall not be permitted.

Some of the questions this raises are:

- ☺ Should the Certification of Mileage be recalculated to determine if the loss of a Turnback in a exchange will create the city to be over-designated or if additional mileage is necessary to designate?

The Needs Study Subcommittee recommends that sufficient mileage for designation must be available because State Statute does not allow basic mileage in excess of 20%.

ANNUAL CERTIFICATION OF MILEAGE

SEE ENCLOSED RESOLUTION AND INSTRUCTIONS
*RECORD REVISIONS ON BACK OF CERTIFICATE

	Municipal Mileage as of Dec. 31, 1993				Revisions During Current Year (+ or -) *				Municipal Mileage as of Dec. 31, 1994			
	Non-Existing	Unimproved	Improved	Total	Non-Existing	Unimproved	Improved	Total	Non-Existing	Unimproved	Improved	Total
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
MILEAGE NOT CONSIDERED IN THE COMPUTATION OF BASIC MILEAGE												
1. Trunk Highways												
2. Trunk Highways Turnbacks (Designated as MSAS)											1.0	1.0
3. County State Aid Highways (Exclude mileage designated as MSAS)											1.0	1.0
4. County Highway Turnbacks (Designated as MSAS)												
5. County Municipal State Aid Streets (Jointly designated - County State Aid & MSAS)												
6. Total Mileage of Line 1 Thru 5	Previous =				(+ or -) Adjustment =				Current =		2.0	
BASIC MILEAGE: MILEAGE CONSIDERED IN THE COMPUTATION OF ALLOWABLE MILEAGE												
7. Municipal State Aid Streets (Exclude Trunk and County Highway Turnbacks)											10.0	10.0
8. County Roads (Exclude mileage designated as MSAS)											—	
9. Other Local Roads And Streets - not designated (Include T.H. & CSAH frontage roads)											40.0	40.0
10. Total Improved Basic Mileage (Total of line 7 + 8 + 9)	Previous =				(+ or -) Adjustment =				Current =		50.0	
11. Percentage Limitation Allowed by Statute										x	0.20	
12. MAXIMUM MILEAGE ALLOWED FOR M.S.A.S. DESIGNATIONS (Col XI, Line 11 Times Line 10).											10.0	
13. Total Municipal State Aid Street Designated (Colum XII, Line 2 + 4 + 5 + 7).										11.0		
14. Total MSAS One-Way Street Mileage Included in Col. XII, Line 5 & 7. (Only if considered as 1/2 Mileage - per Screening Board approval)									Miles Divided By 2 = (-)			
15. Total Miles of T.H. & County Turnbacks Designated as Msas Above 20% (Col. XII Line 2 & 4).									(-)	1.0		
16. Mileage designated MSAS - not including One-Way 1/2 Mileage, T.H. and C.R. Turnbeck mileage (Line 13 minus Line 14 & Line 15).											10.0	
17. Municipal State Aid Street Mileage Over/Under Maximum Allowed. (Line 12 minus line 16).											0.0	

I hereby certify that the total Improved Mileage (Col.XI. Line 6 + 10) in the Municipality of _____ as of December 31, 1994 is _____ Miles.

Signed _____ _____ Title _____ Date _____

EXAMPLE 4 - MILEAGE AFTER EXCHANGE-- CSAH FOR TH TURNBACK

ANNUAL CERTIFICATION OF MILEAGE

SEE ENCLOSED RESOLUTION AND INSTRUCTIONS
*RECORD REVISIONS ON BACK OF CERTIFICATE

	Municipal Mileage as of Dec. 31, 1994				Revisions During Current Year (+ or -) *				Municipal Mileage as of Dec. 31, 1995			
	Non-Existing	Unimproved	Improved	Total	Non-Existing	Unimproved	Improved	Total	Non-Existing	Unimproved	Improved	Total
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
MILEAGE NOT CONSIDERED IN THE COMPUTATION OF BASIC MILEAGE												
1. Trunk Highways												
2. Trunk Highways Turnbacks (Designated as MSAS)			1.0				-1.0				0.0	0.0
3. County State Aid Highways (Exclude mileage designated as MSAS)			1.0								1.0	0.0
4. County Highway Turnbacks (Designated as MSAS)												
5. County Municipal State Aid Streets (Jointly designated - County State Aid & MSAS)												
6. Total Mileage of Line 1 Thru 5	Previous =				(+ or -) Adjustment =				Current =		1.0	
BASIC MILEAGE: MILEAGE CONSIDERED IN THE COMPUTATION OF ALLOWABLE MILEAGE												
7. Municipal State Aid Streets (Exclude Trunk and County Highway Turnbacks)			10				+1.0				11.0	11.0
8. County Roads (Exclude mileage designated as MSAS)												
9. Other Local Roads And Streets - not designated (Include T.H. & CSAH frontage roads)			40								40.0	40.0
10. Total Improved Basic Mileage (Total of line 7 + 8 + 9)	Previous =				(+ or -) Adjustment =				Current =		51.0	
11. Percentage Limitation Allowed by Statute										x	0.20	
12. MAXIMUM MILEAGE ALLOWED FOR M.S.A.S. DESIGNATIONS (Col XI, Line 11 Times Line 10).											10.2	
13. Total Municipal State Aid Street Designated (Colum XII, Line 2 + 4 + 5 + 7).										11.0		
14. Total MSAS One-Way Street Mileage Included In Col. XII, Line 5 & 7 . (Only if considered as 1/2 Mileage - per Screening Board approval)									Miles Divided By 2 = (-)			
15. Total Miles of T.H. & County Turnbacks Designated as Msas Above 20% (Col. XII Line 2 & 4).									(-)	0.0		
16. Mileage designated MSAS - not including One-Way 1/2 Mileage, T.H. and C.R. Turnback mileage (Line 13 minus Line 14 & Line 15).											11.0	
17. Municipal State Aid Street Mileage Over/Under Maximum Allowed. (Line 12 minus line 16).											0.8 OVER	

I hereby certify that the total Improved Mileage (Col.XI. Line 6 + 10) in the Municipality of _____ as of December 31, 1995 is _____ Miles.

MINUTES
MUNICIPAL SCREENING BOARD
UNENCUMBERED CONSTRUCTION FUND SUBCOMMITTEE
APRIL 19, 1995

The April 19, 1995 meeting of the Municipal Screening Board Unencumbered Construction Fund Subcommittee was called to order by Chairman Dan Edwards at 12:00 p.m., April 19, 1995. Present was Dan Edwards (Chairman), Alan Gray (Member), Ken Larson (Member), and Ken Straus (Municipal State Aid Needs Manager).

I. Unencumbered Construction Fund Balance Survey Conducted May, 1994

The Committee reviewed the results of the May, 1994 survey of 30 City Engineers with high unencumbered construction balances. The survey contained several suggestions that respondents felt could be effective in reducing account balances. The Committee concluded that many of the suggestions are being incorporated into pending rule changes.

II. Advanced Funding

The Committee reviewed the proposed rule changes regarding advanced funding and recommends the following guidelines to the Screening Board and State-Aid Office:

A. The State-Aid Office should develop a process to survey and identify cities which are planning to request advanced funding.

B. Requests for advanced funding be processed "first come-first serve" based on the date of request to the District State-Aid Offices.

C. No additional requests for advanced funding should be approved if the total of unencumbered funds would drop below 50% of the current year's total construction allocation.

D. New construction allocations should be applied first to the reduction of advances and second to the construction balances.

III. Unencumbered Balance Adjustment

The Committee recommends no changes be made to the current Unencumbered Construction Fund Balance Adjustment Resolution. The unencumbered construction balance has been trending downward since peaking in 1992 and rules changes may assist in continuing this trend.

IV> Incentives to Reduce Unencumbered Construction Fund Balances

The Committee recommends that consideration of incentives which would increase apportionments to cities with low balances be defered until the impact of pending rules chances on construction fund balances can be evaluated.

Respectfully submitted,

Alan D. Gray, P.E.
Committee Secretary

Approved by Rules Committee 2-3-95
Revised 3-24-95

CHAPTER 8820
DEPARTMENT OF TRANSPORTATION
DIVISION OF STATE AID FOR LOCAL TRANSPORTATION
~~TECHNICAL SERVICES DIVISION~~
STATE-AID OPERATIONS

8820.0100 DEFINITIONS.

Subpart 1. Scope. For purposes of this chapter the following terms have the meanings given them in this part.

Subp. 1a. ADT. "ADT" means average daily traffic, which is computed by dividing the total number of vehicles traveling over a segment of roadway in one year divided by 365.

Subp. 2. Advance ~~encumbrance~~. "Advance ~~encumbrance~~" means the authorized expenditure of local funds or state-aid funds from another account, in lieu of state-aid funds from a specified account, by a county or urban municipality for use on an approved state-aid project. By agreement with the commissioner, the advanced ~~local~~ funds will be repaid to the county or urban municipality from future county or municipal state-aid allotments or from future county or municipal turnback funds.

Subp. 10. Advance from urban municipal funds. When the commissioner approves a request from the governing body of an eligible urban municipality for constructing an approved municipal state-aid street project requiring funds in excess of the urban municipality's available ~~allotment,~~balance, then, subject to limits of the law, the urban municipality may make advances from any state-aid or local funds available to the urban municipality for the construction of that project. The request for an advance shall be in the form of a resolution, and shall be submitted with the report of state-aid contract, except that requests to advance local funds may be made with the report of final estimate. Advances repaid from the turnback account must be processed according to part 2900, subpart 4. The commissioner shall repay the advanced funds ~~and these excess costs are initially paid from other local sources, then the commissioner, to the extent authorized by law, shall repay these locally financed expenditures~~ out of subsequent urban municipal construction account apportionments or turnback account apportionments ~~to the urban municipal account of that municipality~~ in accordance with the terms and conditions specified in the approved request. ~~The request for advance encumbrance must be submitted with the report of state-aid contract.~~

Subp. 10a Advance from the municipal state-aid street fund. When the commissioner approves a request from the governing body of an eligible urban municipality for constructing an approved municipal state-aid project requiring municipal state-aid highway funds in excess of the urban municipality's available balance, then, subject to limits of the law, the urban municipality may request to advance funds from the municipal state-aid street fund. The request for an advance shall be in the form of a resolution, and shall be submitted prior to approval of the report of state-aid contract. The commissioner shall restore the municipal state-aid street fund out of subsequent urban municipal construction account apportionments or turnback account apportionments in accordance with the terms and conditions specified in the approved request. The amount of the advance encumbrance shall not exceed $500,000 or the last year's apportionment whichever is greater, except that in no case shall the advance exceed three times the last year's apportionment.

The municipal screening board shall recommend to the commissioner procedures for prioritizing requests for advance funding and a minimum balance for the municipal state-aid street account, below which no further advances shall be granted.

ADVANCE FUNDING

The proposed new Operational Rules state that the Screening Board shall recommend proceedures for prioritizing requests for advance funding and setting a minimum balance at which no further advances shall be granted from the municipal state aid street account.

NOTE: THE NEW RULES HAVE NOT BEEN ADOPTED. The time table indicates the new rules will be in effect this Fall. It is possible there may be some changes.

Below are some questions for the Subcommittee to discuss and perhaps offer some recommendations to the June Screening Board.

PRIORITIZING

1) First come, first serve?

2) Should urban municipalities with a zero Unencumbered Construction Balance be given priority?

3) What Priority should be given to municipalities with a balance, but not enough to completely fund the project?

4) Projects in progress - overruns on finals, supplemental agreements, etc. that exceed the existing advance or account balance. Like a ready reserve system.

MINIMUM BALANCE

1) On what date should the minimum balance be set? For example, the account balance is much higher in January after the allocation is made than in December after most of the payments have been made.

2) What should be the minimun balance in the account? A specific dollar figure?

3) Should the minimum balance in the account be based on a percentage of the funds available at a certain period?

4) Should the minimum balance be based on the amount spent on construction projects the previous year?

5) What criteria should be in place when cities are competing for funds when one has a high allocation and the other a small allocation? This would be critical when funds are close to minimum balance threshold

GENERAL QUESTIONS

1) What effect will this have on total unencumbered balance?

2) Should the Screening Board set guidelines on payback schedules?

3) Should a positive needs adjustment be given for both the local and State Aid advance encumberances? Basically, the affect is the same as bonds.

RESOLUTION

CITY OF _____

WHEREAS, The _____ of _____ has obtained the Commissioner's approval of the plans for the following Municipal State Aid Street Project(s):

S.A.P. No. _____ M.S.A.S. No. _____

Located _____

Consisting of _____

S.A.P. No. _____ M.S.A.S. No. _____

Located _____

Consisting of _____

AND, WHEREAS, said City is prepared to proceed with the construction of said project(s) by providing local OTHER STATE AID funds to supplement the available funds in its Municipal State-Aid Street Account.

WHEREAS, repayment of the funds so advanced by the municipality is desired in accordance with the provisions of Minnesota Statutes 162.14, Subdivision 6.

NOW, THEREFORE, BE IT RESOLVED: That the Commissioner of Transportation be and is hereby requested to approve this basis for financing and construction project(s) and to authorize repayments from the subsequent accruals to the Construction Account of Municipal State-Aid Street Fund for said City within the limitations provided by law and at the times and in the amounts as herein indicated:

On or after Feb. 1, 19___ - $_____ from 19___ Allotment

On or after Feb. 1, 19___ - $_____ from 19___ Allotment

On or after Feb. 1, 19___ - $_____ from 19___ Allotment

CERTIFICATION

I, _____, duly appointed and qualified Clerk in and for the City of _____, State of Minnesota, do hereby certify that the above is a true and full copy of a resolution adopted by the City Council assembled in (regular)(special) session on the ____ day of _____, 19____.

(SEAL)

_____
City Clerk

Submit:
2 copies - S.A. Section

City of _____

ADVANCE ENCUMBRANCE - CITY LOCAL STATE AID FUNDS TO CITY REGULAR ACCOUNT
SAMPLE RESOLUTION

UNENCUMBERED CONSTRUCTION FUND BALANCE ADJUSTMENT

The 1994 amount available is the unencumbered construction fund balance adjustment and is deducted from the city's total needs. See Screening Board Resolution and Determination of the 1994 Money Needs Apportionment on page 26-28.

In 1994, the total amount available was reduced by $68,967,776. This total includes the difference between the 1993 and 1994 amount available of $6,746,846 plus $62,220,930, the 1994 construction allotment.

Municipalities	Unencumbered Amount Available 9-1-93	Unencumbered Amount Available 9-1-94	Difference Between 1993 and 1994	Percentage of Total Amount in 1994 Account	Ratio to City's 1994 Construction Allotment
Albert Lea	$1,464,051	$1,434,418	($29,633)	1.4027	3.6386
Alexandria	817,740	352,466	(465,274)	0.3447	1.5910
Andover	507,482	139,427	(368,055)	0.1363	0.3309
Anoka	233,201	126,020	(107,181)	0.1232	0.4414
Apple Valley	512,348	0	(512,348)	0.0000	0.0000
Arden Hills	203,311	348,759	145,448	0.3410	2.3978
Austin	1,409,408	1,609,819	200,411	1.5742	2.3136
Bemidji	1,050,825	868,191	(182,634)	0.8490	3.0809
Blaine	1,679,675	1,723,234	43,559	1.6851	2.2390
Bloomington	4,767,722	2,275,641	(2,492,081)	2.2253	1.2512
Brainerd	910,713	897,710	(13,003)	0.8778	3.8821
Brooklyn Center	1,566,900	1,620,130	53,230	1.5843	2.7320
Brooklyn Park	2,208,736	1,833,269	(375,467)	1.7927	1.9880
Buffalo	112,242	202,063	89,821	0.1976	1.2696
Burnsville	1,286,843	1,448,298	161,455	1.4162	1.5297
Cambridge	203,984	110,006	(93,978)	0.1076	0.7790
Champlin	656,743	1,012,203	355,460	0.9898	2.8476
Chanhassen	190,250	669,038	478,788	0.6542	1.3974
Chaska	1,104,195	627,754	(476,441)	0.6139	1.6518
Chisholm	185,707	0	(185,707)	0.0000	0.0000
Cloquet	0	90,451	90,451	0.0884	0.2950
Columbia Heights	1,246,320	1,532,730	286,410	1.4988	5.0191
Coon Rapids	609,726	1,582,006	972,280	1.5470	1.3744
Corcoran	0	123,350	123,350	0.1206	0.8400
Cottage Grove	697,385	40,000	(657,385)	0.0391	0.0559
Crookston	630,203	417,860	(212,343)	0.4086	1.0551
Crystal	699,113	1,291,257	592,144	1.2627	2.2046
Detroit Lakes	138,748	236,599	97,851	0.2314	1.2698
Duluth	368,899	1,318,047	949,148	1.2889	0.6400
Eagan	189,724	0	(189,724)	0.0000	0.0000
East Bethel	0	181,372	181,372	0.1774	0.9546
East Grand Forks	443,607	602,684	159,077	0.5893	3.5157
Eden Prairie	0	514,084	514,084	0.5027	0.4868
Edina	4,697,540	5,526,060	828,520	5.4038	6.6698
Elk River	275,042	0	(275,042)	0.0000	0.0000
Fairmont	978,311	112,286	(866,025)	0.1098	0.2037

Municipalities	Unencumbered Amount Available 9-1-93	Unencumbered Amount Available 9-1-94	Difference Between 1993 and 1994	Percentage of Total Amount in 1994 Account	Ratio to City's 1994 Construction Allotment
Falcon Heights	$193,599	$246,233	$52,634	0.2408	4.6782
Faribault	810,038	960,865	150,827	0.9396	2.3135
Farmington	277,284	310,906	33,622	0.3040	1.3991
Fergus Falls	752,757	769,674	16,917	0.7526	2.6669
Forest Lake	137,257	250,595	113,338	0.2450	2.2110
Fridley	1,017,865	694,359	(323,506)	0.6790	1.5524
Golden Valley	2,034,284	1,484,033	(550,251)	1.4512	3.0534
Grand Rapids	550,581	355,674	(194,907)	0.3478	1.9042
Ham Lake	609,199	388,907	(220,292)	0.3803	2.1235
Hastings	292,819	510,139	217,320	0.4988	1.7869
Hermantown	873,583	543,831	(329,752)	0.5318	2.9086
Hibbing	695,132	163,083	(532,049)	0.1595	0.2870
Hopkins	0	264,586	264,586	0.2587	0.6524
Hugo	0	0	0	0	0
Hutchinson	1,093,202	920,930	(172,272)	0.9005	2.6806
International Falls	136,131	258,409	122,278	0.2527	1.1348
Inver Grove Heights	123,432	0	(123,432)	0.0000	0.0000
Lake Elmo	668,965	0	(668,965)	0.0000	0.0000
Lakeville	785,359	0	(785,359)	0.0000	0.0000
Lino Lakes	335,507	245,842	(89,665)	0.2404	0.9620
Litchfield	812,283	380,465	(431,818)	0.3720	2.6123
Little Canada	203,823	181,975	(21,848)	0.1779	1.1472
Little Falls	0	21,602	21,602	0.0211	0.0802
Mahtomedi	0	125,683	125,683	0.1229	1.0000
Mankato	1,077,764	1,520,027	442,263	1.4864	2.1804
Maple Grove	177,368	127,172	(50,196)	0.1244	0.1376
Maplewood	923,124	567,388	(355,736)	0.5548	1.0285
Marshall	493,535	719,520	225,985	0.7036	3.1839
Mendota Heights	522,605	148,470	(374,135)	0.1452	0.7927
Minneapolis	11,900,725	11,131,300	(769,425)	10.8849	1.6597
Minnetonka	3,015,107	1,591,583	(1,423,524)	1.5564	1.2335
Montevideo	336,534	504,872	168,338	0.4937	2.9992
Monticello	95,013	218,459	123,446	0.2136	1.7697
Moorhead	1,867,673	574,408	(1,293,265)	0.5617	0.9486
Morris	0	0	0	0.0000	0.0000
Mound	734,667	896,741	162,074	0.8769	5.5329
Mounds View	1,088,539	561,747	(526,792)	0.5493	3.5673
New Brighton	1,487,343	1,541,685	54,342	1.5076	4.3733
New Hope	578,291	667,164	88,873	0.6524	1.8781
New Ulm	0	83,217	83,217	0.0814	0.2196
Northfield	873,078	762,891	(110,187)	0.7460	2.6576
North Mankato	325,611	349,684	24,073	0.3419	1.2517

Municipalities	Unencumbered Amount Available 9-1-93	Unencumbered Amount Available 9-1-94	Difference Between 1993 and 1994	Percentage of Total Amount in 1994 Account	Ratio to City's 1994 Construction Allotment
North St. Paul	$304,120	$461,802	$157,682	0.4516	2.3297
Oak Grove	0	243,956	243,956	0.2386	1.0000
Oakdale	0	0	0	0.0000	0.0000
Orono	1,151,470	620,436	(531,034)	0.6067	2.5755
Otsego	193,389	355,615	162,226	0.3477	1.6168
Owatonna	803,794	1,172,351	368,557	1.1464	2.0970
Plymouth	3,254,191	2,820,420	(433,771)	2.7580	2.2294
Prior Lake	982,546	686,788	(295,758)	0.6716	2.6647
Ramsey	637,119	888,335	251,216	0.8687	2.5293
Red Wing	880,770	1,274,421	393,651	1.2462	3.2374
Richfield	3,042,015	3,572,625	530,610	3.4936	4.8071
Robbinsdale	221,620	537,255	315,635	0.5254	1.6564
Rochester	2,970,789	2,918,408	(52,381)	2.8538	1.8793
Rosemount	0	307,493	307,493	0.3007	0.7972
Roseville	1,369,024	713,894	(655,130)	0.6981	1.1778
St. Anthony	301,972	206,642	(95,330)	0.2021	1.4722
St. Cloud	553,554	437,029	(116,525)	0.4274	0.5539
St. Louis Park	946,151	1,476,414	530,263	1.4437	2.2425
St. Paul	10,239,375	10,473,157	233,782	10.2414	1.7518
St. Peter	415,634	346,780	(68,854)	0.3391	1.2383
Sartell	143,850	281,423	137,573	0.2752	1.9532
Sauk Rapids	721,125	488,693	(232,432)	0.4779	2.3216
Savage	38,642	225,673	187,031	0.2207	0.6181
Shakopee	480,688	309,562	(171,126)	0.3027	1.0208
Shoreview	372,190	85,754	(286,436)	0.0839	0.1963
Shorewood	657,489	776,055	118,566	0.7589	4.6756
South St. Paul	1,217,844	1,302,079	84,235	1.2733	3.7600
Spring Lake Park	354,219	463,501	109,282	0.4532	4.5280
Stillwater	1,565,214	1,574,442	9,228	1.5396	4.5340
Thief River Falls	615,641	90,490	(525,151)	0.0885	0.3442
Vadnais Heights	0	0	0	0.0000	0.0000
Virginia	64,853	312,771	247,918	0.3058	1.2616
Waite Park	0	0	0	0.0000	0.0000
Waseca	0	36,249	36,249	0.0354	0.2224
West St. Paul	684,174	801,828	117,654	0.7841	2.5778
White Bear Lake	553,436	744,023	190,587	0.7276	1.6119
Willmar	212,057	421,337	209,280	0.4120	1.0449
Winona	283,431	136,600	(146,831)	0.1336	0.2735
Woodbury	2,058,872	1,783,151	(275,721)	1.7437	1.6852
Worthington	772,172	1,004,552	232,380	0.9823	3.7080
TOTAL	$109,010,201	$102,263,355	($6,746,846)	100.0000	1.6436

APPORTIONMENT AFFECT OF THE 1995 UNENCUMBERED BALANCE ADJUSTMENT

Municipality	Apportionment Affect Of The Unencumbered Adjustment	Municipality	Apportionment Affect Of The Unencumbered Adjustment	Municipality	Apportionment Affect Of The Unencumbered Adjustment
Albert Lea	($19,813)	Fergus Falls	($5,721)	North St. Paul	($6,393)
Alexandria	2,029	Forest Lake	(2,344)	Oak Grove	5,278
Andover	18,841	Fridley	(3,792)	Oakdale	14,308
Anoka	6,612	Golden Valley	(16,532)	Orono	(1,047)
Apple Valley	24,456	Grand Rapids	(297)	Otsego	3,646
Arden Hills	(4,208)	Ham Lake	(3,874)	Owatonna	(11,429)
Austin	(14,913)	Hastings	(3,266)	Plymouth	(36,211)
Bemidji	(8,833)	Hermantown	(6,053)	Prior Lake	(5,520)
Blaine	(14,756)	Hibbing	31,938	Ramsey	(4,905)
Bloomington	47,258	Hopkins	4,669	Red Wing	(7,933)
Brainerd	(13,839)	Hugo	12,943	Richfield	(63,782)
Brooklyn Center	(13,603)	Hutchinson	(12,964)	Robbinsdale	(5,834)
Brooklyn Park	(18,344)	International Fall	667	Rochester	(15,380)
Buffalo	4,026	Inver Grove Heig	15,808	Rosemount	9,007
Burnsville	(2,957)	Lake Elmo	4,532	Roseville	1,807
Cambridge	4,006	Lakeville	39,042	St. Anthony	23
Champlin	(16,901)	Lino Lakes	5,378	St. Cloud	25,293
Chanhassen	(423)	Litchfield	(1,855)	St. Louis Park	(16,644)
Chaska	(1,579)	Little Canada	1,721	St. Paul	(5,393)
Chisholm	6,097	Little Falls	10,743	St. Peter	1,678
Cloquet	17,694	Mahtomedi	(434)	Sartell	(2,229)
Columbia Heigh	(29,080)	Mankato	(6,821)	Sauk Rapids	(5,755)
Coon Rapids	(11,636)	Maple Grove	37,737	Savage	15,052
Corcoran	6,323	Maplewood	4,706	Shakopee	5,132
Cottage Grove	27,194	Marshall	(8,268)	Shoreview	4,502
Crookston	8,261	Mendota Height	4,158	Shorewood	(10,959)
Crystal	(7,066)	Minneapolis	39,353	South St. Paul	(22,251)
Detroit Lakes	324	Minnetonka	2,751	Spring Lake Park	(8,811)
Duluth	68,487	Montevideo	(6,427)	Stillwater	(30,568)
Eagan	37,695	Monticello	294	Thief River Falls	11,049
East Bethel	7,069	Moorhead	17,345	Vadnais Heights	3,624
East Grand Fork	(8,894)	Morris	4,182	Virginia	3,078
Eden Prairie	22,316	Mound	(17,845)	Waite Park	4,780
Edina	(109,652)	Mounds View	(10,383)	Waseca	3,303
Elk River	24,350	New Brighton	(29,600)	West St. Paul	(11,754)
Fairmont	27,414	New Hope	(2,817)	White Bear Lake	(3,153)
Falcon Heights	(5,507)	New Ulm	10,186	Willmar	6,059
Faribault	(3,313)	Northfield	(7,944)	Winona	14,117
Farmington	3,498	North Mankato	2,086	Woodbury	(456)
				Worthington	(16,962)

RELATIONSHIP OF CONSTRUCTION BALANCE TO CONSTRUCTION ALLOTMENT

The amount spend on construction projects was computed by the difference between the previous year's unencumbered construction balance plus the years construction apportionment.

pp. ear	No. of Municipalities	Needs Mileage	Unencumbered Construction Balance	Construction Allotment	Amount Spent on Construction Projects	Ratio of Construction Balance to Construction Allotment	Ratio of Amount spent to Amount Received
)73	94	1557.31	$26,333,918	$15,164,273	$12,855,250	1.7366	0.8477
)74	95	1574.52	29,760,552	18,052,386	14,625,752	1.6486	0.8102
)75	99	1629.30	33,239,840	19,014,171	15,534,883	1.7482	0.8170
)76	101	1696.56	37,478,614	18,971,282	14,732,508	1.9755	0.7766
)77	101	1748.55	43,817,240	23,350,429	17,011,803	1.8765	0.7285
)78	104	1768.90	45,254,560	23,517,393	22,080,073	1.9243	0.9389
)79	106	1839.51	48,960,135	26,196,935	22,491,360	1.8689	0.8585
)80	106	1889.03	51,499,922	29,082,865	26,543,078	1.7708	0.9127
)81	106	1913.57	55,191,785	30,160,696	26,468,833	1.8299	0.8776
)82	109	1995.74	57,550,334	36,255,443	33,896,894	1.5874	0.9349
)83	110	2041.94	68,596,586	39,660,963	28,614,711	1.7296	0.7215
)84	110	2066.80	76,739,685	41,962,145	33,819,046	1.8288	0.8059
)85	111	2121.49	77,761,378	49,151,218	48,129,525	1.5821	0.9792
86*	107	2139.42	78,311,767	50,809,002	50,258,613	1.5413	0.9892
)87	107	2148.07	83,574,312	46,716,190	41,453,645	1.7890	0.8874
)88	108	2164.99	85,635,991	49,093,724	47,032,045	1.7443	0.9580
)89	109	2205.05	105,147,959	65,374,509	45,862,541	1.6084	0.7015
)90	112	2265.64	119,384,013	68,906,409	54,670,355	1.7326	0.7934
)91	113	2330.30	120,663,647	66,677,426	65,397,792	1.8097	0.9808
)92	116	2376.79	129,836,670	66,694,378	57,521,355	1.9467	0.8625
)93	116	2410.53	109,010,201	64,077,980	84,904,449	1.7012	1.3250
)94	117	2471.04	102,263,355	62,220,930	68,967,776	1.6436	1.1084

ıe date for the unencumbered balance deduction was changed from June 30 to September 1 in 1986.

APPORTIONMENT RANKINGS

Rankings are from highest apportionment per Needs mile to lowest.

Municipality	1994 Total Needs Mileage	1994 Population Apportionment Per Need Mile
Falcon Heights	2.54	$30,521
Minneapolis	191.83	27,671
New Hope	12.37	25,456
Shoreview	13.93	25,433
Hopkins	9.41	25,311
St. Paul	156.91	25,000
St. Louis Park	25.73	24,522
Arden Hills	5.41	24,501
Little Canada	5.30	24,390
New Brighton	13.42	23,844
Vadnais Heights	6.77	23,500
Forest Lake	3.69	23,461
Columbia Heights	11.65	23,389
Maplewood	19.18	23,255
West St. Paul	12.12	22,884
North St. Paul	8.14	21,908
St. Anthony	5.18	21,495
Mounds View	8.44	21,411
Roseville	22.78	21,181
Brooklyn Park	38.45	21,129
Rochester	48.43	21,119
Anoka	11.89	20,835
South St. Paul	14.33	20,309
Robbinsdale	10.33	20,081
Richfield	26.21	19,632
Coon Rapids	38.95	19,599
Brooklyn Center	21.30	19,542
White Bear Lake	18.34	19,345
Crystal	17.88	19,171
Waseca	6.31	19,148
Northfield	11.25	18,808
Winona	19.62	18,680
St. Cloud	39.02	18,037
Spring Lake Park	5.24	17,962
Oakdale	14.78	17,942
Mahtomedi	4.55	17,839
Blaine	31.73	17,700
Mankato	25.94	17,445

Municipality	1994 Total Needs Mileage	1994 Money Needs Apportionment Per Need Mile
Crookston	10.91	$27,503
Minneapolis	191.83	26,484
St. Paul	156.91	26,106
Fairmont	19.38	25,114
Savage	13.67	24,342
Bloomington	73.88	22,613
Crystal	17.88	22,476
Farmington	8.31	21,728
Woodbury	32.53	21,669
Cambridge	5.49	20,235
Orono	11.44	20,186
Brooklyn Center	21.30	20,088
Mankato	25.94	19,233
Hopkins	9.41	19,227
Buffalo	7.58	19,208
Rochester	48.43	18,951
Little Canada	5.30	18,947
Thief River Falls	11.45	18,711
Chaska	12.32	18,287
Duluth	90.34	18,047
Cloquet	18.05	17,918
Moorhead	28.46	17,885
New Hope	12.37	17,873
Waite Park	4.46	17,727
Red Wing	21.61	17,639
Austin	22.84	17,628
Maple Grove	39.04	16,974
Forest Lake	3.69	16,887
Lakeville	38.37	16,400
Owatonna	17.51	16,222
Cottage Grove	28.04	16,202
Fergus Falls	13.74	16,193
St. Anthony	5.18	16,007
Sartell	4.79	15,965
Faribault	20.89	15,815
Maplewood	19.18	15,771
Northfield	11.25	15,704
St. Peter	10.59	15,635

Municipality	1994 Total Needs Mileage	1994 Total Apportionment Per Need Mile
Minneapolis	191.83	$54,155
St. Paul	156.91	51,106
Hopkins	9.41	44,538
Little Canada	5.30	43,337
New Hope	12.37	43,329
Crystal	17.88	41,647
Forest Lake	3.69	40,348
Rochester	48.43	40,070
Brooklyn Center	21.30	39,630
Bloomington	73.88	39,452
Maplewood	19.18	39,026
Crookston	10.91	38,226
Arden Hills	5.41	37,714
St. Anthony	5.18	37,502
St. Louis Park	25.73	37,015
Mankato	25.94	36,678
Columbia Heights	11.65	35,706
Roseville	22.78	34,977
Richfield	26.21	34,853
Savage	13.67	34,784
Northfield	11.25	34,512
Falcon Heights	2.54	34,293
Moorhead	28.46	34,236
New Brighton	13.42	34,178
Anoka	11.89	34,032
Waite Park	4.46	33,965
West St. Paul	12.12	33,677
Cambridge	5.49	33,621
Woodbury	32.53	33,585
Oakdale	14.78	33,545
Fairmont	19.38	33,490
St. Cloud	39.02	33,184
Shoreview	13.93	33,102
Buffalo	7.58	33,089
Winona	19.62	33,058
Brooklyn Park	38.45	32,996
White Bear Lake	18.34	32,778
Sartell	4.79	32,240

Municipality	Total Needs Mileage	Population Apportionment Per Need Mile
Mound	8.01	$17,331
Apple Valley	29.36	16,980
Burnsville	43.67	16,923
Edina	39.36	16,868
Bloomington	73.88	16,839
Fridley	24.92	16,384
Moorhead	28.46	16,351
Inver Grove Heights	19.81	16,349
Sartell	4.79	16,275
Waite Park	4.46	16,238
Eagan	42.47	16,085
Champlin	15.14	16,036
Owatonna	17.51	15,953
Plymouth	46.20	15,872
Stillwater	12.80	15,628
Hastings	14.45	15,435
Eden Prairie	37.59	15,069
International Falls	8.06	14,840
Hutchinson	11.16	14,796
Worthington	9.81	14,655
Maple Grove	39.04	14,297
Albert Lea	18.65	14,147
Minnetonka	49.68	14,029
Marshall	12.39	13,983
Buffalo	7.58	13,881
Austin	22.84	13,835
Duluth	90.34	13,636
Sauk Rapids	8.31	13,565
New Ulm	14.13	13,392
Cambridge	5.49	13,386
North Mankato	11.48	13,383
Chaska	12.32	13,262
Fergus Falls	13.74	13,096
Golden Valley	23.38	12,925
St. Peter	10.59	12,900
Prior Lake	13.08	12,649
Lakeville	38.37	12,496
Brainerd	14.30	12,448
Morris	6.66	12,144
Monticello	5.99	12,136
Woodbury	32.53	11,916
Faribault	20.89	11,788

Municipality	Total Needs Mileage	Money Needs Apportionment Per Need Mile
Oakdale	14.78	$15,603
Litchfield	7.83	15,590
Otsego	12.90	15,567
Elk River	24.01	15,510
Rosemount	17.41	15,394
Monticello	5.99	15,358
Richfield	26.21	15,221
St. Cloud	39.02	15,147
North Mankato	11.48	15,095
Eden Prairie	37.59	15,031
Winona	19.62	14,378
Shorewood	9.29	14,353
Eagan	42.47	14,306
Hutchinson	11.16	14,238
Bemidji	14.36	14,234
Blaine	31.73	14,197
Chisholm	6.93	14,180
Prior Lake	13.08	14,170
Virginia	12.33	14,155
International Falls	8.06	14,138
Chanhassen	18.54	14,045
New Ulm	14.13	13,972
Golden Valley	23.38	13,956
Roseville	22.78	13,796
Hugo	15.21	13,716
Minnetonka	49.68	13,689
Albert Lea	18.65	13,598
White Bear Lake	18.34	13,433
Alexandria	12.94	13,408
Arden Hills	5.41	13,213
Little Falls	13.77	13,202
Anoka	11.89	13,197
Worthington	9.81	13,033
Inver Grove Heights	19.81	12,862
Shakopee	16.17	12,762
St. Louis Park	25.73	12,493
Marshall	12.39	12,440
Sauk Rapids	8.31	12,328
Columbia Heights	11.65	12,317
Apple Valley	29.36	12,248
Montevideo	8.01	12,242
Burnsville	43.67	12,155

Municipality	Total Needs Mileage	Total Apportionment Per Need Mile
Owatonna	17.51	$32,175
Vadnais Heights	6.77	32,128
Farmington	8.31	32,028
North St. Paul	8.14	31,911
Blaine	31.73	31,897
Robbinsdale	10.33	31,752
Duluth	90.34	31,683
South St. Paul	14.33	31,574
Chaska	12.32	31,549
Austin	22.84	31,463
Maple Grove	39.04	31,271
Coon Rapids	38.95	31,007
Eagan	42.47	30,391
Eden Prairie	37.59	30,100
Waseca	6.31	29,880
Orono	11.44	29,362
Fergus Falls	13.74	29,289
Apple Valley	29.36	29,228
Inver Grove Heights	19.81	29,211
Burnsville	43.67	29,078
Hutchinson	11.16	29,034
International Falls	8.06	28,978
Lakeville	38.37	28,896
Thief River Falls	11.45	28,791
St. Peter	10.59	28,535
North Mankato	11.48	28,478
Mounds View	8.44	28,168
Edina	39.36	28,043
Cottage Grove	28.04	27,988
Albert Lea	18.65	27,745
Red Wing	21.61	27,730
Minnetonka	49.68	27,718
Worthington	9.81	27,688
Plymouth	46.20	27,623
Faribault	20.89	27,603
Monticello	5.99	27,494
New Ulm	14.13	27,364
Mahtomedi	4.55	27,336
Golden Valley	23.38	26,881
Prior Lake	13.08	26,819
Litchfield	7.83	26,797
Cloquet	18.05	26,608

Municipality	1994 Total Needs Mileage	1994 Population Apportionment Per Need Mile
Cottage Grove	28.04	$11,786
Mendota Heights	11.66	11,602
East Grand Forks	10.82	11,530
Litchfield	7.83	11,207
Bemidji	14.36	11,204
Virginia	12.33	11,021
Chisholm	6.93	10,999
Willmar	23.30	10,842
Detroit Lakes	9.54	10,786
Crookston	10.91	10,723
Shakopee	16.17	10,461
Savage	13.67	10,442
Farmington	8.31	10,300
Grand Rapids	11.36	10,117
Red Wing	21.61	10,091
Thief River Falls	11.45	10,080
Montevideo	8.01	9,892
Orono	11.44	9,176
Shorewood	9.29	9,171
Chanhassen	18.54	9,121
Alexandria	12.94	8,941
Lake Elmo	9.53	8,882
Cloquet	18.05	8,690
Fairmont	19.38	8,376
Lino Lakes	15.59	8,140
Little Falls	13.77	7,713
Hermantown	12.99	7,500
Rosemount	17.41	7,136
Andover	30.90	7,096
Elk River	24.01	6,687
Ramsey	28.62	6,247
Ham Lake	20.93	6,144
Otsego	12.90	5,830
Corcoran	13.72	5,460
Hibbing	50.70	5,129
East Bethel	23.16	5,008
Hugo	15.21	4,948
Oak Grove	17.97	4,401
Average		**$14,971**

Municipality	1994 Total Needs Mileage	1994 Money Needs Apportionment Per Need Mile
Grand Rapids	11.36	$12,085
Brooklyn Park	38.45	11,867
Lino Lakes	15.59	11,858
Hibbing	50.70	11,825
Plymouth	46.20	11,751
Robbinsdale	10.33	11,671
Andover	30.90	11,630
Willmar	23.30	11,414
Coon Rapids	38.95	11,408
South St. Paul	14.33	11,265
Edina	39.36	11,175
Corcoran	13.72	11,020
Mendota Heights	11.66	10,834
West St. Paul	12.12	10,793
Waseca	6.31	10,732
Stillwater	12.80	10,638
Hastings	14.45	10,459
Detroit Lakes	9.54	10,454
New Brighton	13.42	10,334
Oak Grove	17.97	10,157
Morris	6.66	10,121
North St. Paul	8.14	10,003
Ramsey	28.62	9,636
Mahtomedi	4.55	9,497
Brainerd	14.30	9,476
Hermantown	12.99	9,212
East Grand Forks	10.82	9,000
Mound	8.01	8,808
Champlin	15.14	8,711
Fridley	24.92	8,676
Vadnais Heights	6.77	8,628
Spring Lake Park	5.24	8,229
East Bethel	23.16	8,048
Shoreview	13.93	7,669
Lake Elmo	9.53	7,665
Mounds View	8.44	6,757
Ham Lake	20.93	4,438
Falcon Heights	2.54	3,772
Average		**$14,282**

Municipality	1994 Total Needs Mileage	1994 Total Apportionment Per Need Mile
Marshall	12.39	$26,423
Stillwater	12.80	26,266
Spring Lake Park	5.24	26,191
Mound	8.01	26,139
Hastings	14.45	25,894
Sauk Rapids	8.31	25,893
Bemidji	14.36	25,438
Chisholm	6.93	25,179
Virginia	12.33	25,176
Fridley	24.92	25,060
Champlin	15.14	24,747
Shorewood	9.29	23,524
Shakopee	16.17	23,223
Chanhassen	18.54	23,166
Rosemount	17.41	22,530
Mendota Heights	11.66	22,436
Alexandria	12.94	22,349
Morris	6.66	22,265
Willmar	23.30	22,256
Grand Rapids	11.36	22,202
Elk River	24.01	22,197
Montevideo	8.01	22,134
Brainerd	14.30	21,924
Otsego	12.90	21,397
Detroit Lakes	9.54	21,240
Little Falls	13.77	20,915
East Grand Forks	10.82	20,530
Lino Lakes	15.59	19,998
Andover	30.90	18,726
Hugo	15.21	18,664
Hibbing	50.70	16,954
Hermantown	12.99	16,712
Lake Elmo	9.53	16,547
Corcoran	13.72	16,480
Ramsey	28.62	15,883
Oak Grove	17.97	14,558
East Bethel	23.16	13,056
Ham Lake	20.93	10,582
Average		**$29,253**

STATUS OF MUNICIPAL TRAFFIC COUNTING

(Most out-state traffic counts are done by state forces)

1. Seven County Metropolitan Traffic Area

Cities in the seven county metropolitan area count cooperatively with Mn/Dot on a two year cycle and are scheduled to be counted in 1994. Minneapolis and St. Paul count one half each year.

2. Out-State Municipalities

The out-state cities will be counted on a four-year cycle.

3. Municipalities that have a count annually

Duluth counts 1/4 of the city each year.

TRAFFIC TO BE COUNTED IN 1995		
Bemidji	Hutchinson	Sartell
Cambridge	Litchfield	Sauk Rapids
Chisholm	North Mankato	Thief River Falls
Elk River	Owatonna	Virginia
Fergus Falls	Red Wing	Waite Park
Hermantown	St. Cloud	Waseca
Hibbing	St. Peter	Winona

TRAFFIC TO BE COUNTED IN 1996		
Austin	International Falls	Otsego
Buffalo	Montevideo	
Detroit Lakes	Monticello	

TRAFFIC TO BE COUNTED IN 1997		
Albert Lea	Faribault	Moorhead
Brainerd	Grand Rapids	Morris
Crookston	Little Falls	New Ulm
East Grand Forks	Mankato	Northfield
Fairmont	Marshall	

TRAFFIC TO BE COUNTED IN 1998		
Alexandria	Rochester	Worthington
Cloquet	Willmar	

The State Aid Needs unit updates the needs traffic counts when they are received from the Mn/Dot traffic counting office.

CURRENT RESOLUTIONS
OF THE
MUNICIPAL SCREENING BOARD

OCTOBER 1994

BE IT RESOLVED:

ADMINISTRATION

Appointments to Screening Board - Oct. 1961 (Revised June 1981)

That annually the Commissioner of Mn/DOT will be requested to appoint three (3) new members, upon recommendation of the City Engineers Association of Minnesota, to serve three (3) year terms as voting members of the Municipal Screening Board. These appointees are selected from the Nine Construction Districts together with one representative from each of the three (3) major cities of the first class.

Screening Board Chairman and Vice Chairman - June 1987

That the Chairman and Vice Chairman, nominated annually at the annual meeting of the City Engineers association of Minnesota and subsequently appointed by the Commissioner of the Minnesota Department of Transportation shall not have a vote in matters before the Screening Board unless they are also the duly appointed Screening Board Representative of a construction District or of a City of the first class.

Screening Board Secretary - Oct. 1961

That annually, the Commissioner of the Minnesota Department of Transportation (Mn/DOT) may be requested to appoint a secretary, upon recommendation of the City Engineers' Association of Minnesota, as a non-voting member of the Municipal Screening Board for the purpose of recording all Screening Board actions.

Appointment to the Needs Study Subcommittee - June 1987 (Revised June 1993)

The Screening Board Chairman shall annually appoint one city engineer, who has served on the Screening Board, to serve a three year term on the Needs Study Subcommittee. The appointment shall be made at the annual winter meeting of the City's Engineers Association. The appointed subcommittee person shall serve as chairman of the subcommittee in the third year of the appointment.

Appointment to Unencumbered Construction Funds Subcommittee - Revised June 1979

The Screening Board past Chairman be appointed to serve a three-year term on the Unencumbered Construction Fund Subcommittee. This will continue to maintain an experienced group to follow a program of accomplishments.

Screening Board Alternate Attendance - June 1979

The alternate to a third year member be invited to attend the final meeting. A formal request to the alternates governing body would request that he attend the meetings and the municipality pay for its expenses.

Appearance Screening Board - Oct. 1962 (Revised Oct. 1982)

That any individual or delegation having items of concern regarding the study of State Aid Needs or State Aid Apportionment amounts, and wishing to have consideration given to these items, shall, in a written report, communicate with the State Aid Engineer. The State Aid Engineer with concurrence of the Chairman of the Screening Board shall determine which requests are to be referred to the Screening Board for their consideration. This resolution does not abrogate the right of the Screening Board to call any person or persons before the Board for discussion purposes.

Research Account - Oct. 1961

That an annual resolution be considered for setting aside a reasonable amount of money for the Research Account to continue municipal street research activity.

Soil Type - Oct. 1961

That the soil type classification as approved by the 1961 Municipal Screening Board, for all municipalities under Municipal State Aid be adopted for the 1962 Needs Study and 1963 apportionment on all streets in the respective municipalities. Said classifications are to be continued in use until subsequently amended or revised by Municipal Screening Board action.

Improper Needs Report - Oct. 1961

That the Office of State Aid and the District State Aid Engineer is requested to recommend an adjustment of the Needs Reporting whenever there is a reason to believe that said reports have deviated from accepted standards and to submit their recommendations to the Screening Board, with a copy to the municipality involved, or its engineer.

New Cities Needs - Oct. 1983

Any new city which has determined their eligible mileage, but does not have an approved State Aid System, their money needs will be determined at the cost per mile of the lowest other city.

Construction Cut Off Date - Oct. 1962 (Revised 1967)

That for the purpose of measuring the Needs of the Municipal State Aid Highway System, the annual cut off date for recording construction accomplishments based upon the project award date shall be December 31st of the preceding year.

Construction Accomplishments - Oct. 1988 (Revised June 1993)

When a Municipal State Aid Street is constructed to State Aid Standards, said street shall be considered adequate for a period of 20 years from the date of project letting or encumbrance of force account funds.

If, during the period that complete needs are being received the street is improved with a bituminous overlay, concrete joint repair or is widened, the municipality will continue to receive complete needs but shall have the State Aid cost of the bituminous resurfacing or concrete joint repair or widened construction project plus any items constructed that are included in the needs deducted from its total needs for a period of ten (10) years.

In the event sidewalk or curb and gutter is constructed for the total length of the segment, then those items shall be removed from the needs for a period of 20 years.

If the construction of the Municipal State Aid Street is accomplished with local funds, only the construction needs necessary to bring the roadway up to State Aid Standards will be permitted in subsequent needs for 20 years from the date of the letting or encumbrance of force account funds. At the end of the 20 year period, reinstatement for complete construction needs shall be initiated by the Municipality.

Needs for resurfacing, lighting, and traffic signals shall be allowed on all Municipal State Aid Streets at all times.

That any bridge construction project shall cause the needs of the affected bridge to be removed for a period of 35 years from the project letting date or date of force account agreement. At the end of the 35 year period, needs for complete reconstruction of the bridge will be reinstated in the needs study at the initiative of the Municipal Engineer. If, during the period that complete bridge needs are being received the bridge is improved with a bituminous overlay, the municipality will continue to receive complete needs but shall have the non-local cost of the overlay deducted from its total needs for a period of ten (10) years.

The adjustments above will apply regardless of the source of funding for the road or bridge project. Needs may be granted as an exception to this resolution upon request by the Municipal Engineer and justification to the satisfaction of the State Aid Engineer (e.g., a deficiency due to changing standards, projected traffic, or other verifiable causes).

In the event that a M.S.A.S route earning "After the Fact" needs is removed from the M.S.A. system, then, the "After the Fact" needs shall be removed from the needs study, except if transferred to another state system. No adjustment will be required on needs earned prior to the revocation.

POPULATION APPORTIONMENT - October 1994

Be it resolved that beginning with calendar year 1996, the MSA population apportionment shall be determined using the latest available federal census or population estimates of the State Demographer and/or the Metropolitan Council. However, no population shall be decreased below that of the latest available federal census, and no city will be added to or dropped from the MSA eligible list based on population estimates.

DESIGN

Design Limitation on Non-Existing Streets - Oct. 1965

That non-existing streets shall not have their needs computed on the basis of urban design unless justified to the satisfaction of the Commissioner.

Less Than Minimum Width - Oct. 1961 (Revised 1986)

That in the event that a Municipal State Aid Street is constructed with State Aid Funds to a width less than the standard design width as reported in the Needs Study, the total needs shall be taken off such constructed street other than the surface replacement need. Surface replacement and other future needs shall be limited to the constructed width unless exception is justified to the satisfaction of the Commissioner.

Greater Than Minimum Width (Revised June 1993)

If a Municipal State Aid Street is constructed to a width wider than required, resurfacing needs will be allowed on the constructed width.

Miscellaneous Limitations - Oct. 1961

That miscellaneous items such as fence removal, bituminous surface removal, manhole adjustment, and relocation of street lights are not permitted in the Municipal State Aid Street Needs Study. The item of retaining walls, however, shall be included in the Needs Study.

MILEAGE

Feb. 1959 (Revised Oct. 1994)

The maximum mileage for Municipal State Aid Street designation shall be 20 percent of the municipality's basic mileage - which is comprised of the total improved streets less Trunk Highway, County State Aid Highways, and any Trunk Highway and/or County Road Turnback designated as excess Municipal State Aid mileage.

Nov. 1965 (Revised 1972, Oct. 1993)

The maximum mileage for Municipal State Aid Street designation shall be based on the Annual Certification of Mileage current as of December 31st of the preceding year. Submittal of a supplementary certification during the year shall not be permitted. Frontage roads which are not designated trunk highway, trunk highway turnback or County State Aid Highway system shall be considered in the computation of the basic street mileage. The total mileage of county roads and local streets on corporate limits shall be included in the municipality's basic street mileage. Mileage which is on the boundary of two adjoining urban municipalities shall be considered as one-half mileage.

(Nov. 1965 - Revised 1969, October 1993, October, 1994)

However, the maximum mileage for State Aid designation may be exceeded to designate trunk highway turnbacks after July 1, 1965 subject to State Aid Operations Rules.

Any net increase in mileage which is caused by turnbacks or jurisdictional exchanges, including County Highways after May 11, 1994, and designated on the Municipal State Aid Street System in accordance with MSA rules and approved by the Office of State Aid, shall be allowed above the municipality's 20% mileage cap. Exchanges which result in net decreases in mileage shall result in the municipality's mileage in excess of 20% being reduced by a like amount. The amount of excess MSA mileage allowed shall be accumulative of all turnbacks and jurisdictional exchanges, including County Highways after May 11, 1994, but shall never be negative. Excess mileage on the MSA system shall accrue needs in accordance with current rules and resolutions.

Oct. 1961 (Revised May 1980, Oct. 1982, Oct. 1983, and June 1993)

All requests for additional mileage or revisions to the Municipal State Aid System must be received by the District State Aid Engineer by March first and a City Council resolution of approved mileage and the Needs Study reporting data must be received by May first, to be included in the current year's Needs Study. Any requests for additional mileage or revisions to the Municipal State Aid Systems received by the District State Aid Engineer after March first will be included in the following year's Needs Study.

<u>One Way Street Mileage</u> - June 1983 (Revised Oct. 1984, Oct. 1993, June 1994)

That any one-way streets added to the Municipal State Aid Street system must be reviewed by the Needs Study Sub-Committee, and approved by the Screening Board before any one-way street can be treated as one-half mileage in the Needs Study.

Treat all one-way streets between 26 feet and 49 feet wide as one-half of the mileage as outlined in Rule 8820.9940 and allow complete needs, except that no more than one parking lane will be eligible to accrue needs. When Trunk Highway or County Highway Turnback is used as part of a one way pair, mileage for certification shall only be included as trunk Highway or County Turnback mileage and not as provided for in the preceding paragraph.

COST

Construction Item Unit Prices - (Revised Annually)

Right of Way (Needs only) $ 60,000.00 Acre

Grading (Excavation)		$	3.00 Cu. Yd.
Base:			
Class 4	Spec. #2211	$	4.50 Ton
Class 5	Spec. #2211		6.00 Ton
Bituminous	Spec. #2331		21.00 Ton
Surface:			
Bituminous	Spec. #2331	$	21.00 Ton
Bituminous	Spec. #2341		23.50 Ton
Bituminous	Spec. #2361		30.00 Ton
Shoulders:			
Gravel	Spec. #2221	$	7.00 Ton

Miscellaneous:

Storm Sewer Construction	$216,500.00 Mile
Storm Sewer Adjustment	67,100.00 Mile
Special Drainage-Rural	26,000.00 Mile
Traffic Signals	20,000 to 80,000.00 Mile

Signal Needs Based On Projected Traffic

Projected Traffic	Percentage	X Unit Price =		Needs Per Mile
0 - 4,999	.25	$80,000	=	$ 20,000.00 Mile
5,000 - 9,999	.50	$80,000	=	40,000.00 Mile
10,000 & Over	1.00	$80,000	=	80,000.00 Mile

Street Lighting	20,000.00 Mile
Curb & Gutter	5.50 Lin. Ft.
Sidewalk	16.00 Sq. Yd.
Engineering	18%

Removal Items:

Curb & Gutter	$	1.60 Lin. Ft.
Sidewalk		4.50 Sq. Yd.
Concrete Pavement		4.00 Sq. Yd.
Tree Removal		175.00 Unit

STRUCTURES

Bridge Costs - Oct. 1961 (Revised Annually)

That for the study of needs on the Municipal State Aid Street System, bridge costs shall be computed as follows:

Bridges 0 to 149 Ft.	$ 55.00 Sq. Ft.
Bridges 150 to 499 Ft.	55.00 Sq. Ft.
Bridges 500 & Over	55.00 Sq. Ft.

"The money needs for all "non-existing" bridges and grade separations be removed from the Needs Study until such time that a construction project is awarded. At that time a money needs adjustment shall be made by annually adding the total amount of the structure cost that is eligible for State Aid reimbursement for a 15-year period." This directive to exclude all Federal or State grants.

Bridge Width & Costs - (Revised Annually)

That after conferring with the Bridge Section of Mn/DOT and using the criteria as set forth by this Department as to the standard design for railroad structures, that the following costs based on number of tracks be used for the Needs Study:

Railroad Over Highway

Number of Tracks - 1	$5,000 Lin. Ft.
Each Additional Track	$4,000 Lin. Ft.

RAILROAD CROSSINGS

Railroad Crossing Costs - (Revised Annually)

That for the study of needs on the Municipal State Aid Street System, the following costs shall be used in computing the needs of the proposed Railroad Protection Devices:

Railroad Grade Crossings

Signals - (Single track - low speed)	$ 80,000 Unit
Signals and Gates(Multiple Track - high	$110,000 Unit
Signs Only & (low speed)	$ 800 Unit
Rubberized Railroad Crossings (Per Track)	$ 750 Lin. Ft.
Pavement Marking	$ 750 Unit

Maintenance Needs Costs - June 1992 (Revised 1993)

That for the study of needs on the Municipal State Aid Street System, the following costs shall be used in determining the maintenance apportionment needs cost for existing facilities only.

	Cost For Under 1000 Vehicles Per Day	Cost For Over 1000 Vehicles Per Day
Traffic Lanes: Segment length times number of traffic lanes times cost per mile.	$1,320 (Per Mile)	$2,200 (Per Mile)
Parking Lanes: Segment length times number of parking lanes times cost per mile.	$1,320 (Per Mile)	$1,320 (Per Mile)
Median Strip: Segment length times cost per mile.	$ 440 (Per Mile)	$ 880 (Per Mile)
Storm Sewer: Segment length times cost per mile.	$ 440 (Per Mile)	$ 440 (Per Mile)
Traffic Signals: Number of traffic signals times cost for each signal.	$ 440 (Per Each)	$ 440 (Per Each)
Unlimited Segments: Normal M.S.A.S. Streets.		
Minimum allowance for mile is determined by segment length times cost per mile.	$4,400 (Per Mile)	$4,400 (Per Mile)
Limited Segments: Combination Routes.		
Minimum allowance for mile is determined by segment length times cost per mile.	$2,200 (Per Mile)	$2,200 (Per Mile)

NEEDS ADJUSTMENTS

Bond Adjustment - Oct. 1961 (Revised 1976, 1979)

That a separate annual adjustment shall be made in total money Needs of a municipality that has sold and issued bonds pursuant to Minnesota Statutes, Section 162.18, for use on State Aid projects.

That this adjustment, which covers the amortization period, and which annually reflects the net unamortized bonded debt shall be accomplished by adding said net unamortized amount to the computed money needs of the municipality.

For the purpose of this adjustment, the net unamortized bonded debt shall be the total unamortized bonded indebtedness less the unexpended bond amount as of December 31st of the preceding year.

That for the purpose of this separate annual adjustment, the unamortized balance of the St. Paul Bond Account, as authorized in 1953, 2nd United Improvement Program, and as authorized in 1946, Capital Approach Improvement Bonds, shall be considered in the same manner as those bonds sold and issued pursuant to Minnesota Statutes, Section 162.18.

"Bond account money spent off State Aid System would not be eligible for Bond Account Adjustment. This action would not be retroactive, but would be in effect for the remaining term of the Bond issue."

Unencumbered Construction Fund Balance Adjustment - Oct. 1961 (Revised October 1991)

That for the determination of Apportionment Needs, the amount of the unencumbered construction fund balance as of September 1st of the current year shall be deducted from the 25-year total Needs of each individual municipality.

Projects that have been received before September 1st by the District State Aid Engineer for payment shall be considered as being encumbered and the construction balances shall be so adjusted.

Right of Way - Oct. 1965 (Revised June 1986)

The Right of Way needs shall be included in the apportionment needs based on the unit price per mile, until such time that the right of way is acquired and the actual cost established. At that time a money needs adjustment shall be made by annually adding the local cost (which is the total cost less county or trunk highway participation) for a 15-year period. Only right of way acquisition costs that are eligible for State-Aid reimbursement shall be included in the right-of-way money needs adjustment. This Directive to exclude all Federal or State grants. Right-of-way projects that are funded with State Aid Funds will be compiled by the State Aid Office. When "After the Fact" needs are requested for right-of-way projects that have been funded with local funds, but qualify for State Aid reimbursement, documentation (copies of warrants and description of acquisition) must be submitted to the State Aid Office.

Trunk Highway Turnback - Oct. 1967 (Revised June 1989)

That any trunk highway turnback which reverts directly to the municipality and becomes part of the State Aid Street system shall not have its construction needs considered in the money needs apportionment determination as long as the former trunk highway is fully eligible for 100 percent construction payment from the Municipal Turnback Account. During this time of eligibility, financial aid for the additional maintenance obligation, of the municipality

imposed by the turnback shall be computed on the basis of the current year's apportionment data and shall be accomplished in the following manner.

Initial Turnback Maintenance Adjustment - Fractional Year Reimbursement:

The initial turnback adjustment when for less than 12 full months shall provide partial maintenance cost reimbursement by adding said initial adjustment to the money needs which will produce approximately 1/12 of $7,200 per mile in apportionment funds for each month or part of a month that the municipality had maintenance responsibility during the initial year.

To provide an advance payment for the coming year's additional maintenance obligation, a needs adjustment per mile shall be added to the annual money needs. This needs adjustment per mile shall produce sufficient apportionment funds so that at least $7,200 in apportionment shall be earned for each mile of trunk highway turnback on Municipal State Aid Street System.

Turnback adjustments shall terminate at the end of the calendar year during which a construction contract has been awarded that fulfills the Municipal Turnback Account Payment provisions; and the resurfacing needs for the awarded project shall be included in the Needs Study for the next apportionment.

TRAFFIC - June 1971

Traffic Limitation on Non-Existing Streets - Oct. 1965

That non-existing street shall not have their needs computed on a traffic count of more than 4,999 vehicles per day unless justified to the satisfaction of the Commissioner.

Traffic Manual - Oct. 1962

That for the 1965 and all future Municipal State Aid Street Needs Studies, the Needs Study procedure shall utilize traffic data developed according to the Traffic Estimating Manual - M.S.A.S. #5-892.700. This manual shall be prepared and kept current under the direction of the Screening Board regarding methods of counting traffic and computing average daily traffic. The manner and scope of reporting is detailed in the above mentioned manual.

Traffic Counting - Sept. 1973 (Revised June 1987)

That future traffic data for State Aid Needs Studies be developed as follows:

1. The municipalities in the metropolitan area cooperate with the State by agreeing to participate in counting traffic every two years.

2. The cities in the outstate area may have their traffic counted for a nominal fee and maps prepared by State forces every four years, or may elect to continue the present procedure of taking their own counts and preparing their own traffic maps at four year intervals.

3. Some deviations from the present four-year counting cycle shall be permitted during the interim period of conversion to counting by State forces in the outstate area.