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2001 MUNICIPAL SCREENING BOARD DATA

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Minnesota Department of Transportation

Memo

State Aid for Local Transportation
395 John Ireland Boulevard
Mail Stop 500
St. Paul, MN 55155-1899

Office Tel.: 651 296-3011
Fax: 651 282-2727

Date: **May 7, 2001**

To: Municipal Engineers
City Clerks

From: R. Marshall Johnston
Manager, Municipal State Aid Needs Unit

Subject: 2001 Municipal Screening Board Data booklet

Enclosed is a copy of the June 2001 Municipal Screening Board Data booklet.

The data included in this report will be used by the Municipal Board at its June 5 and 6, 2001 meeting to establish unit prices for the 2001 Needs Study that is used to compute the 2002 apportionment. The Board will also review other recommendations of the Needs Study Subcommittee as outlined in their minutes. The Needs Study Subcommittee minutes are found on pages 11 and 12.

Should you have any suggestions or recommendations regarding the data in this publication, please refer them to your District Screening Board Representative or call me at (651) 296-6677.

This report is distributed to all Municipal Engineers and when the municipality engages a consulting engineer, a copy is also sent to the municipal clerk.

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

2001 MUNICIPAL SCREENING BOARD DATA

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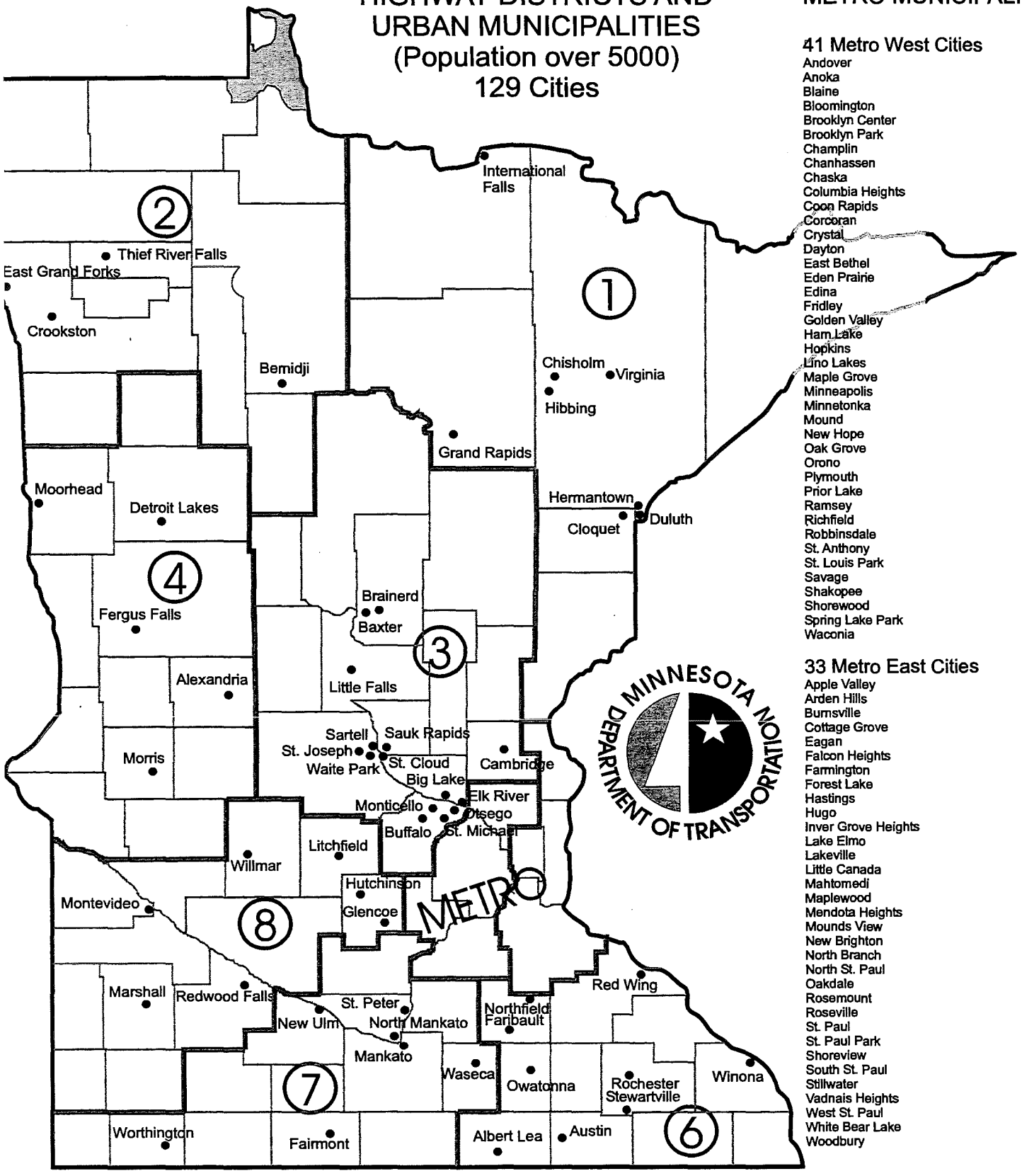
STATE OF MINNESOTA

HIGHWAY DISTRICTS AND URBAN MUNICIPALITIES (Population over 5000) 129 Cities



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METRO MUNICIPALITIES

41 Metro West Cities

Andover
Anoka
Blaine
Bloomington
Brooklyn Center
Brooklyn Park
Champlin
Chanhassen
Chaska
Columbia Heights
Coon Rapids
Corcoran
Crystal
Dayton
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
Waconia

33 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 Branch
North St. Paul
Oakdale
Rosemount
Roseville
St. Paul
St. Paul Park
Shoreview
South St. Paul
Stillwater
Vadnais Heights
West St. Paul
White Bear Lake
Woodbury

April, 2001

2001 MUNICIPAL SCREENING BOARD

OFFICERS

Chair	David Jessup	Woodbury	(651) 714-3593
Vice Chair	Tom Drake	Red Wing	(651) 385-3623
Secretary	Lee Gustafson	Minnetonka	(952) 939-8200

MEMBERS

District	Served	Representative		
1	4	David Salo	Hermantown	(218) 727-8796
2	2	Gary Sanders	East Grand Forks	(218) 773-1185
3	2	Larry Koshak	Otsego	(763) 427-5860
4	1	Jeff Kuhn	Morris	(320) 762-8149
Metro-West	1	Shelly Pederson	Bloomington	(952) 948-3866
6	1	Tim Murray	Faribault	(507) 334-2222
7	3	Steven P. Koehler	New Ulm	(507) 359-8245
8	2	Melvin Odens	Willmar	(320) 235-4202
Metro-East	3	Mark Burch	White Bear Lake	(651) 429-8531
(Three Cities		Mike Metso	Duluth	(218) 723-3278
of the		David Sonnenberg	Minneapolis	(612) 537-6774
First Class)		Ed Warn	Saint Paul	(651) 266-6142

District	Alternates		
1	Jim Kosluchar	Chisholm	(218) 254-7907
2	Vacant		
3	Bret Weiss	Monticello	(763) 541-4800
4	Dan Edwards	Fergus Falls	(218) 739-2251
Metro-West	Vacant		
6	Randy Peterson	Northfield	(507) 645-8832
7	Tim Loose	St. Peter	(507) 625-4171
8	Dave Berryman	Montevideo	(320) 269-7695
Metro-East	Chuck Ahl	Burnsville	(612) 895-4400

2001 SUBCOMMITTEES

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

The past Chair 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
Terry Wotzka, Chair Waite Park, Sauk Rapids (320) 253-1000 Expires in 2001	Brian Bachmeier, Chair Oakdale (612) 739-5086 Expires in 2001
David Salo Hermantown (218) 727-8796 Expires in 2002	John Rodeberg Hutchinson (320) 234-4208 Expires in 2002
Tim Schoonhoven Alexandria (320) 762-8149 Expires in 2003	Ken Ashfeld Maple Grove (612) 494-6000 Expires in 2003

ALLOCATION STUDY SUBCOMMITTEE	
Vacant - (Chair)	(612) 673-2456
Gerald Butcher - Maple Grove	(612) 420-4000
Tom Drake - Red Wing	(651) 338-6734
Jim Prusak - Cloquet	(218) 879-6758
Mike Rardin - St. Louis Park	(612) 924-2551
Ed Warn - St. Paul	(651) 266-6142

2000 Municipal Screening Board Fall Meeting Minutes
October 24th and 25th at Arrowwood Resort, Alexandria, Minnesota

I. Opening by Chairman Ashfeld

The 2000 Municipal Screening Board Fall Meeting was called to order at 1:00 p.m., October 24th, 2000.

A. Chairman Ashfeld Introduced:

Himself, Ken Ashfeld, Maple Grove - Chair, Municipal Screening Board

Julie Skallman, Mn/DOT - Director, State Aid for Local Transportation

David Jessup, Woodbury - Vice Chair, Municipal Screening Board

Marshall Johnston, Mn/DOT - Manager, Municipal State Aid Needs Unit

Dave Sonnenberg, Minneapolis - Past Chair, Municipal Screening Board and Chair, Unencumbered Construction Fund Subcommittee

John Rodeberg, Hutchinson - Past Chair, Municipal Screening Board

Brian Bachmeier, Oakdale - Past Chair, Municipal Screening Board

Jack Bittle, Champlin - Chair, Needs Study Subcommittee

Ramankutty Kannankutty, Minneapolis - Chair, Allocation Study Subcommittee

Tom Drake, Red Wing - Secretary, Municipal Screening Board

The Chair then conducted the roll call of members:

District 1	David Salo	Hermantown
District 2	Michael Metso	Bemidji
District 3	Larry Koshak	Otsego
District 4	Tim Schoonhoven	Alexandria
Metro-West	Lee Gustafson	Minnetonka
District 6	David Olson	Albert Lea
District 7	Steven Koehler	New Ulm
District 8	Melvin Odens	Willmar
Metro-East	Mark Burch	White Bear Lake

Duluth	Mark Winson	
Minneapolis	Ramankutty Kannankutty	
St. Paul	Ed Warn	

Recognize Screening Board Alternates:

District 1	Kim Kosluchar	Chisholm
District 4	Tim Bayerl (Not Present)	Morris
District 6	Tim Murray	Faribault

B. The Chair recognized Department of Transportation personnel.

Mike Pinsonneault	Assistant State Aid Engineer
Khani Sahebjam	State Aid Pre-Letting Engineer
Ken Hoeschen	Manager, County State Aid Needs
Walter Leu	District 1 State Aid Engineer
Lou Tasa	District 2 State Aid Engineer
Kelvin Howieson	District 3 State Aid Engineer
Tallack Johnson (Not Present)	District 4 State Aid Engineer
Greg Paulson	District 6 State Aid Engineer
Doug Haeder	District 7 State Aid Engineer
Tom Behm	District 8 State Aid Engineer
Bob Brown (Not Present)	Metro State Aid Engineer

C. Recognize others in attendance

Dave Kreager	Duluth
Dan Sabin	Minneapolis
Larry Veek	Minneapolis
Beth Blasingame	Minneapolis
Mark Channer	Municipal State Aid Needs Unit
Patti Loken	Ass't. Metro State Aid Engineer
Greg Felt	Ass't. Metro State Aid Engineer
John Doan	Saint Paul
Diane Gould	County State Aid Needs Unit

I. Review of Municipal Needs

A. Consideration of the June Screening Board Minutes (Pages 6-10):

Moved by Lee Gustafson seconded by Mark Burch to approve minutes. Approved unanimous.

B. Unencumbered Construction Funds Subcommittee (UCFS) Report by Chair Dave Sonnenberg, (Pages 11 & 12 and Handouts)

Chair Sonnenberg reviewed the minutes of the subcommittee's September 29th meeting.

- The UCFS recommends that all requests and council resolutions for advance funding expire if there are insufficient funds to advance and no more funds are released in that year. Cities need to resubmit an application to request an advance for the next year.

- The UCFS recommends that the screening board concur with the Commissioners of Transportation to seek legislation to reduce the Disaster Fund from 5% to 3% over a seven year period. (Example of the Disaster Account Reduction and usage history was included in packet along with proposed legislation.)

  Julie Skallman explained how the disaster fund worked and that damage estimates submitted by the city must exceed 10% of the city's current annual state aid allotment before the commissioner shall authorize the disaster board to inspect the disaster area.

  Dave Olson stated that District 6 supported the decrease.

  Steve Koehler reported that District 7 questioned going through the effort.

  Dave Sonnenberg cautioned going to the Legislature and opening State Aid up for scrutiny.

- The UCFS recommends that the date for funding requests be revised form December 31 to December 1 to eliminate conflicting year end reports.

- The UCFS noted that 16 Cities with large balances accounted for 32% of Fund Balance and that letters will be sent to all 16 Cities asking them for explanations to be reviewed by the UCFS.

Marshall Johnston continued to review the Booklet

C. 2000 Screening Board and Subcommittee Members (Pages 2 - 5).

D. Theoretical Population Apportionment (Pages 13-21).

Marshall noted that Big Lake and St. Joseph had reached the 5000 population figure and would be included in the State Aid Allocations. He further noted that with the population increasing by an estimated 52,956 persons the amount per person would be reduced slightly to $16.03540373 per person based on the 2000 distribution of $51,601,384.00

E. 2000 Needs Study Update (Pages 22-26).

Marshall noted that the 2000 construction needs were estimated at $2,207,697,128 which was an 8% increase from 1999 due mostly to unit price updates and $41,370,637 in construction and system revisions.

F. Mileage, Needs and Apportionment (Pages 27 – 30).

Marshall noted that the 2000 MSAS Needs Mileage increased by 60.87 to 2972.87 miles.

G. Itemized Tabulation of Needs (Page 31 and insert).

H. 1999 to 2000 Needs Comparison (Page 33).

I. Tentative 2001 Construction Needs Apportionment and Adjustments (Pages 34-58 and Handout).

Marshall discussed the needs apportionment and proposed adjustments.

J. Tentative Apportionment Data (Pages 59-71 and handout).

Marshall noted that based on the 2000 distribution of $51,395,537 the tentative 2001 construction needs apportionment would be $23.28 per $1,000 in needs.

K. Certification of MSAS System as Complete (Pages 75-76).

L. General Fund Advances (Pages 77-79).

M. 2000 Additional Construction and Maintenance Allotments (Pages 80-84).

N. History of the Administrative Account (Page 85).

O. Research Account (Page 86).

Action will be taken tomorrow morning on the amount to be set aside for the 2001 research account. It is usually approved at the maximum of ½ of 1% of the previous years allotment.

P. County Highway Turnback Policy (Pages 87-88).

Q. Current Resolutions of the Municipal Screening Board (Page 89-99).

III. Chair Ashfeld called for any other subjects the representatives or audience wou like presented.

Larry Koshak asked for consideration of the $500,000 limit on construction fund advances for sm cities, suggesting that it needed to be raised to $750,000.
Dave Sonnenberg asked about the time frame for repayment.

IV. The Chair requested a motion for adjournment until 8:30 a.m. Wednesday morning, when formal action will be taken on the items before the board.

Moved by Mark Winston and Seconded by Steve Koehler. Motion passed unanimously.

WEDNESDAY MORNING SESSION:

The Committee reconvened at 8:40 a.m. Wednesday Morning.

I. Review the previous days subjects and take action on specific items:

1. The Chair requested a motion relative to the Unencumbered Construction Funds Subcommittee recommendations.

a. Motion was made by Lee Gustafson and seconded by Mark Winston to revise the submittal date of payment requests from December 31 to December 1. **Motion passed unanimously.**
b. Motion was made by Steve Koehler and seconded by Ramankutty Kannkutty to require requests for advance funding be resubmitted each calendar year. **Motion passed unanimously.**
c. Motion was made by Ed Warn and seconded by Mark Burch to support the legislation to reduce the disaster account from 5% to 3% with a preference for a one time move. **Motion passed with David Salo, Melvin Odens and Steve Koehler voting nay.**

2. Needs and Apportionment Data.

a. Motion was made by Ramankutty Kannkutty to approve the needs and apportionment data as proposed pages 13-70 and on the pink handout titled 2000 adjusted construction needs recommendations dated October 20, 2000. **Motion passed unanimously. All Board members signed the letter on page 59.**

3. Research Account

a. Motion was made by Ed Warn and seconded by Ramankutty Kannankutty that it be resolved that an amount of $516,013 (not to exceed 1/2 of 1% of the 2000 M.S.A.S. Apportionment sum of $103,202,769) be set aside from the 2001 Apportionment fund for the research account. **Motion passed unanimously.**

II. Any other items the representatives would like to bring up.

Moved by Larry Kosak and seconded by Ed Warn to change the wording in the first sentence of the General Fund Advances, page 78 to "Cities with a construction allotment of $500,000 or less can now advance up to three times its previous years construction allotment or $750,000 whichever is less." **Motion passed unanimously.**

Motion by Larry Kosak and seconded by Ed Warn to refer the remaining language to the Unencumbered Construction Fund Subcommittee for further consideration. **Motion passed unanimously.**

Concern was expressed about 12 gap Cities with construction allocations between $500,000 and $750,000.

Julie Skallman explained that while the Screening Board recommendation would be taken into consideration, any revision to the General Fund Advance guidelines is ultimately an administrative decision in consultation with State Aid finance.

III. Comments by Julie Skallman

No Comments

IV. The Chair thanked Jack Bittle, Chair of the Needs Study Subcommittee, Dave Sonnenberg, Chair of the Unencumbered Construction Fund Subcommittee and Ramankutty Kannankutty, Chair of the Allocation Study Subcommittee.

The Chair also thanked the past chairs for their time and appearance at the meeting- Dave Sonnenberg, Brian Bachmeier, and John Rodeberg.

The Chair also thanked the three Representatives who will be leaving the Board:
David Salo, Tim Schoonhoven and David Olson.

A motion was made by Mark Burch and seconded by Ramankutty Kannankutty thanking Chairman Ashfeld for his 1 & 1/2 years of service as Chair. **Motion passed unanimously.**

VI. The Chair requested a motion for adjournment

Motion was made by Ramankutty Kannankutty and seconded by Steve Koehler to adjourn. **Motion passed unanimously.**

Chair Ashfeld asked that members attend the 10:00 a.m. joint meeting with the City and County Engineers.

Respectfully submitted,

Thomas W. Drake, P.E.
MSA Screening Board Secretary
(City Engineer - Red Wing)

R. Marshall Johnston
Manager, Municipal State Aid Needs Unit

April 26, 2001

To the Members of the 2001 Municipal Screening Board:

The Needs Study Subcommittee met at the St. Cloud office of SEH on Thursday, April 19, 2001. Members of the subcommittee present were Terry Wotzka, Tim Schoonhoven, and David Salo. Marshall Johnston, Mark Channer, and Julee Puffer were present from Division of State Aid. The meeting convened at 1:05 p.m.

The subcommittee reviewed the Unit Price Study. Because the Needs Unit did not conduct a unit price study this year, a number of the unit prices are based on the MSA Composite Index of 104.88 and rounded to the nearest unit. It was agreed that Marshall would prepare the subcommittee's recommended unit prices to be used in the 2001 Needs Computation for presentation to the Screening Board.

The following is a summary of items referred to the NSS by the Screening Board:

Street Lighting:

Subcommittee recommendation is $78,000.00 per mile. This is the figure this subcommittee recommended last year. After reviewing the data provided, it was felt that this recommendation is based on solid data.

Traffic Signals:

Subcommittee recommendation is $120,000.00 per signal. The logic for this decision was basic experience supported by the documentation presented by Mark Channer indicating that needs generally matched spending. The actual contract price of traffic signals is hard to determine because the costs taken from the abstract of bids on some projects (7 projects this year) were not split out and could not be included in calculating the prices.

Bridges:

The subcommittee reviewed a spreadsheet prepared by the MSAS Needs Unit to determine if a single bridge unit price would be adequate for needs purposes. Subcommittee recommendation is $68.00 per square foot for all bridges.

Wear and Non-wear Bituminous:

After studying the spreadsheet presented, and discussion on the impacts of changing bituminous types to wear and non-wear in the unit price study, the subcommittee recommendation is that all future bituminous prices confirm to wear and non-wear philosophy with the unit prices for 2001 established at $31.00 per ton for wear and $30.00 per ton for non-wear.

The subcommittee then discussed possible Screening Board discussion items that may come before them in the future. These items included the following:

Do we still need the Allocation Study Subcommittee? Should it be disbanded?

Should there be a positive needs adjustment for spending local funds on the MSAS system?

Should there be a positive needs adjustment for receiving a General Fund Advance?

Should there be a negative needs adjustment for off system expenditures?

Staggering the terms of the Metro district screening board representatives.

Better define the responsibilities and duties of the NSS (Needs Study Subcommittee) and the UCFS (Unencumbered Construction Funds Subcommittee).

Should urban segments get extra drainage needs for detention or retention ponds?

Meeting adjourned at 3:35 p.m.

David P. Salo
Secretary of Needs Study Subcommittee

The MSA Composite Index of 104.8853793 was applied against the 2000 price noted by *.

2001 UNIT PRICE RECOMMENDATIONS
USING AVERAGE CONSTRUCTION COST INDEX

Needs Item		2000 Need Prices	Applying MSA Cost Index Prices for 2001	Sub-committee Suggested Prices For 2001	Screening Board Recommended Prices For 2001
Grading (Excavation)	Cu. Yd.	$3.30	$3.46 *	**$3.40**	
Aggregate Shoulders #2221	Ton	11.00	11.54 *	**11.50**	
Curb and Gutter Removal	Lin.Ft.	2.20	2.31 *	**2.30**	
Sidewalk Removal	Sq. Yd.	5.10	5.35 *	**5.35**	
Concrete Pavement Removal	Sq. Yd.	5.00	5.24 *	**5.25**	
Tree Removal	Unit	200.00	209.77 *	**210.00**	
Class 5 Base #2211	Ton	6.70	7.03 *	**6.70**	
Bituminous Base #2331	Ton	25.50	26.75 *	**30.00**	
Bituminous Surface #2331	Ton	25.50	26.75 *	**30.00**	
Bituminous Surface #2341	Ton	26.50	27.79 *	**30.00**	
Bituminous Surface #2361	Ton	31.50	33.04 *	**33.00**	
Curb and Gutter Construction	Lin.Ft.	7.70	8.08 *	**7.70**	
Sidewalk Construction	Sq. Yd.	21.50	22.55 *	**22.00**	
Storm Sewer Adjustment	Mile	80,200		**80,400**	
Storm Sewer	Mile	248,500		**248,000**	
Special Drainage - Rural	Mile	35,000		**41,000**	
Street Lighting	Mile	50,000		**78,000**	
Traffic Signals	Per Sig	99,990		**120,000**	
Signal Needs Based On Projected Traffic					
Projected Traffic Percentage	X Unit Price =	Needs Per Mile			
0 - 4,999 .25	$99,990 =	$24,998			
5,000 - 9,999 .50	99,990 =	49,995			
10,000 & Over 1.00	99,990 =	99,990			
Right of Way (Needs Only)	Acre	87,000		**90,000**	
Engineering	Percent	18		**20**	
Railroad Grade Crossing					
Signs	Unit	1,000		**1,000**	
Pavement Marking	Unit	750		**750**	
Signals (Single Track-Low Speed	Unit	110,000		**120,000**	
Signals & Gate (Multiple Track - High & Low Speed)	Unit	150,000		**160,000**	
Concrete Xing Material(Per Track	Lin.Ft.	900		**900**	
Bridges					
0 to 149 Ft.	Sq. Ft.	65.00		**68.00**	
150 to 499 Ft.	Sq. Ft.	62.50		**68.00**	
500 Ft. and over	Sq. Ft.	60.00		**68.00**	
Railroad Bridges over Highways					
Number of Tracks - 1	Lin.Ft.	9,000	9,440 *	**9,000**	
Additional Track (each)	Lin.Ft.	7,500	7,866 *	**7,500**	

ANNUAL MAINTENANCE NEEDS COST

The prices below are used to compute the maintenance needs on each segment. Each street, based on its existing data, receives a maintenance need. This amount is added to the segment's street needs. The total statewide maintenance needs based on these costs in 2000 was $19,507,294.
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 **$8140** in maintenance needs per mile.

EXISTING FACILITIES ONLY

	2000 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	$1,400	$2,300	**$1,450**	**$2,400**		
Parking Lane Per Mile	1,400	1,400	**1,450**	**1,450**		
Median Strip Per Mile	460	910	**480**	**950**		
Storm Sewer Per Mlle	460	460	**480**	**480**		
Per Traffic Signal	460	460	**480**	**480**		
Normal M.S.A.S. Streets Minimum Allowance Per Mile	4,600	4,600	**4,800**	**4,800**		

"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

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A HISTORY OF THE ANNUAL MAINTENANCE NEEDS COSTS

(COMPUTED ON EXISTING MILEAGE ONLY)

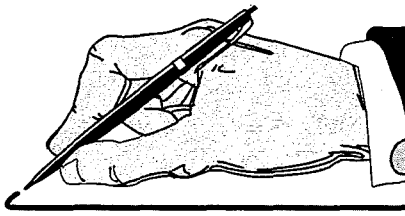
26-Apr-01

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
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	1,320	2,200	1,320	1,320	440	880	440	440	440	440	4,400	4,400
1996	1,320	2,200	1,320	1,320	440	880	440	440	440	440	4,400	4,400
1998	1,320	2,200	1,320	1,320	440	880	440	440	440	440	4,400	4,400
1999	1,360	2,260	1,360	1,360	450	900	450	450	450	450	4,500	4,500
2000	1,400	2,300	1,400	1,400	460	910	460	460	460	460	4,600	4,600
2001	**1,450**	**2,400**	**1,450**	**1,450**	**480**	**950**	**480**	**480**	**480**	**480**	**4,800**	**4,800**

THESE MAINTENANCE COSTS ARE USED IN COMPUTING NEEDS .

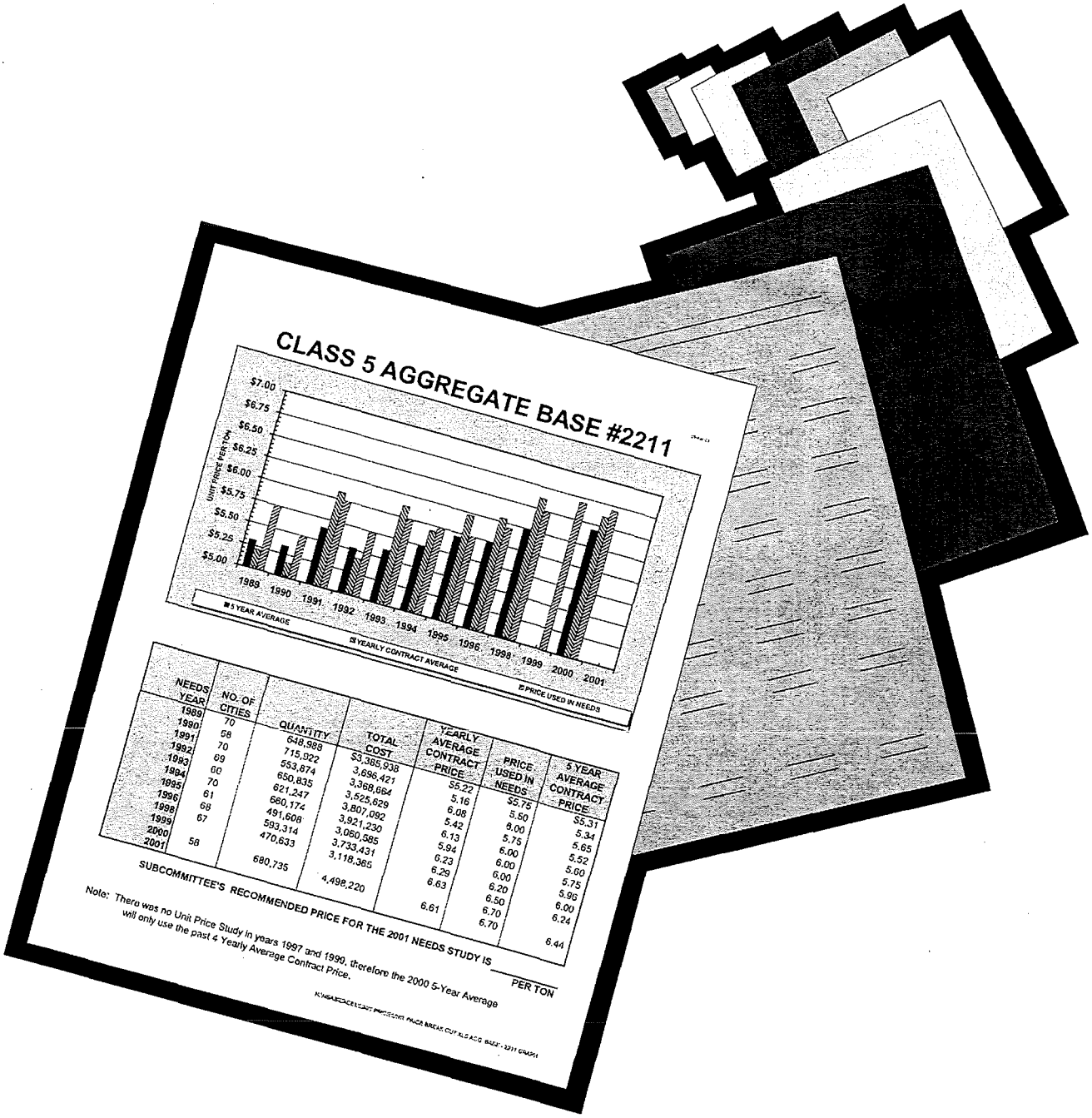
ALL MAINTENANCE COSTS FOR COMMON BOUNDARY DESIGNATIONS AND APPROVED ONE WAY STREETS ARE COMPUTED USING THE LENGTH REPORTED IN THE NEEDS STUDY.

n:/msas/excel/2001/JUNE 2001 book/Maintenance Cost History.xls



NOTES and COMMENTS

UNIT PRICES

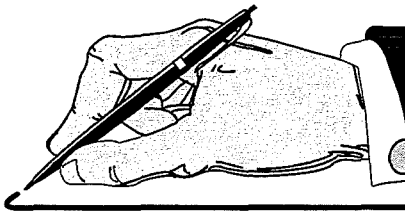


NEEDS YEAR	NO. OF CITIES	QUANTITY	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5 YEAR AVERAGE CONTRACT PRICE
1989	70	648,988	$3,385,938	$5.22	$5.75	$5.31
1990	58	715,922	3,696,421	5.16	5.50	5.34
1991	70	553,874	3,368,664	6.08	6.00	5.65
1992	69	650,835	3,525,629	5.42	5.75	5.52
1993	60	621,247	3,807,092	6.13	6.00	5.60
1994	70	680,174	3,921,230	5.94	6.00	5.75
1995	61	491,608	3,060,585	6.23	6.00	5.96
1996	68	593,314	3,733,431	6.29	6.20	6.00
1998	67	470,633	3,118,385	6.63	6.50	6.24
1999					6.70	
2000	58	680,735	4,498,220	6.61	6.70	6.44
2001						

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2001 NEEDS STUDY IS _____ PER TON

Note: There was no Unit Price Study in years 1997 and 1999, therefore the 2000 5-Year Average will only use the past 4 Yearly Average Contract Price.

AND GRAPHS



NOTES and COMMENTS

MSAS CONSTRUCTION COST INDEX

At the Spring, 1996 Municipal Screening Board meeting, the following motion was passed unanimously:

> **Motion to adjust Unit Prices every two years, with the ability to adjust significant unit prices changes on a yearly basis.**

The Mn/Dot Cost Index was not used because the scope of Mn/DOT projects is much different than MSA projects. Mn/Dot computes their cost index on 6 items. Some items are not used in computing the MSA needs. It was decided that a MSAS Cost Index would better estimate MSAS costs.

Nine items were chosen from the Unit Price study for the MSAS Cost Index. They were chosen because they make a good cross section of the items used in the Unit Price Study.

The year 1988 was used as the base year with a value of 100. Then, the average contract price for a year is divided by the average contract price for the base year (1988) and the result is multiplied by 100. This gives the annual Cost Index for each item.

The Relative Weight of each item is the percentage of the 1988 construction cost of each individual item divided by the total 1988 construction cost of all nine items.

The relative weight times the Cost Index of each individual item are added together to get the MSAS Composite Cost Index

The annual Composite Cost Index are then added together and divided by the number of years to get the average Composite Cost Index. The average for this year is 104.8853793.

This number should be used as a guideline for the Needs Study Subcommittee and the Screening Board in setting Unit Prices for this year.

MUNICIPAL STATE AID
ANNUAL CONSTRUCTION COST INDEX (CI)

Base Year of 1988 = 100

Cost Index - relating the average bid costs for each year to the 1988 costs with a basis as 100.
Includes Municipal State Aid expenditures for on system projects from past unit price studies
Based on quantities and prices for projects awarded each year

YEAR	CI Grading (Excavation)	CI C & G Removal	CI Sidewalk Removal	CI Conc. Pvmt. Removal	CI Gravel Base
1988	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**
1989	81.13	82.04	88.58	69.33	91.26
1990	81.51	83.83	97.46	83.15	90.21
1991	98.87	102.99	106.60	82.94	106.29
1992	114.34	94.01	130.20	88.12	94.76
1993	102.26	92.22	121.57	87.47	107.17
1994	126.42	112.57	110.41	91.36	103.85
1995	98.11	110.18	136.04	89.85	108.92
1996	95.47	122.75	106.35	92.22	109.97
1998	134.34	117.37	126.14	101.30	115.91
2000	113.96	129.94	128.93	125.49	115.56
AVERAGE	**104.219554**	**104.3549265**	**113.844024**	**91.93010014**	**103.9891926**
1988 Cost	$2,113,700	$139,029	$141,549	$493,029	$2,185,112
Relative wt. (%)	14.90	0.98	1.00	3.48	15.40

YEAR	CI #2331 Bit	CI #2341 Bit	CI C&G Const.	CI Sdwk. Const.	CI Composite Index
1988	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**
1989	91.73	93.20	95.38	92.66	89.99
1990	88.33	92.16	94.41	89.44	89.01
1991	99.80	97.10	101.73	96.30	99.64
1992	108.22	104.42	102.31	101.37	104.37
1993	98.60	103.85	105.97	101.85	102.40
1994	100.80	98.70	106.17	114.88	106.69
1995	99.55	100.87	120.42	113.58	105.24
1996	106.11	102.56	120.23	114.88	106.92
1998	114.33	106.54	142.97	142.39	122.45
2000	129.56	119.32	144.32	148.49	127.02
AVERAGE	**103.3658226**	**101.7008544**	**112.1737607**	**110.5312383**	**104.8853793**
1988 Cost	$3,515,861	$2,352,539	$1,868,721	$1,376,749	$14,186,289
Relative wt. (%)	24.78	16.58	13.17	9.70	100.00

Relative weight is the % of the total $ amount for the 9 items used to compute the Cost Index.

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COMPARISON OF 1988 AND 2000 WEIGHTED COSTS

YEAR	CI Grading (Excavation)	CI C & G Removal	CI Sidewalk Removal	CI Conc. Pvmt. Removal	CI Gravel Base
1988 Cost	$2,113,700	$139,029	$141,549	$493,029	$2,185,112
Relative wt. (%)	14.90	0.98	1.00	3.48	15.40
2000 Cost	$3,490,120	$248,505	$224,067	$399,759	$4,498,220
Relative Wt. (%)	16.11	1.15	1.03	1.85	20.77

YEAR	CI #2331 Bit	CI #2341 Bit	CI C&G Const.	CI Sdwk. Const.	CI Composite Index
1988 Cost	$3,515,861	$2,352,539	$1,868,721	$1,376,749	$14,186,289
Relative wt. (%)	24.78	16.58	13.17	9.70	100.00
2000 Cost	$3,954,123	$3,792,496	$3,133,900	$1,917,075	$21,658,265
Relative Wt. (%)	18.26	17.51	14.47	8.85	100.00

Relative weight is the % of the total $ amount for the 9 items used to compute the Cost Index.

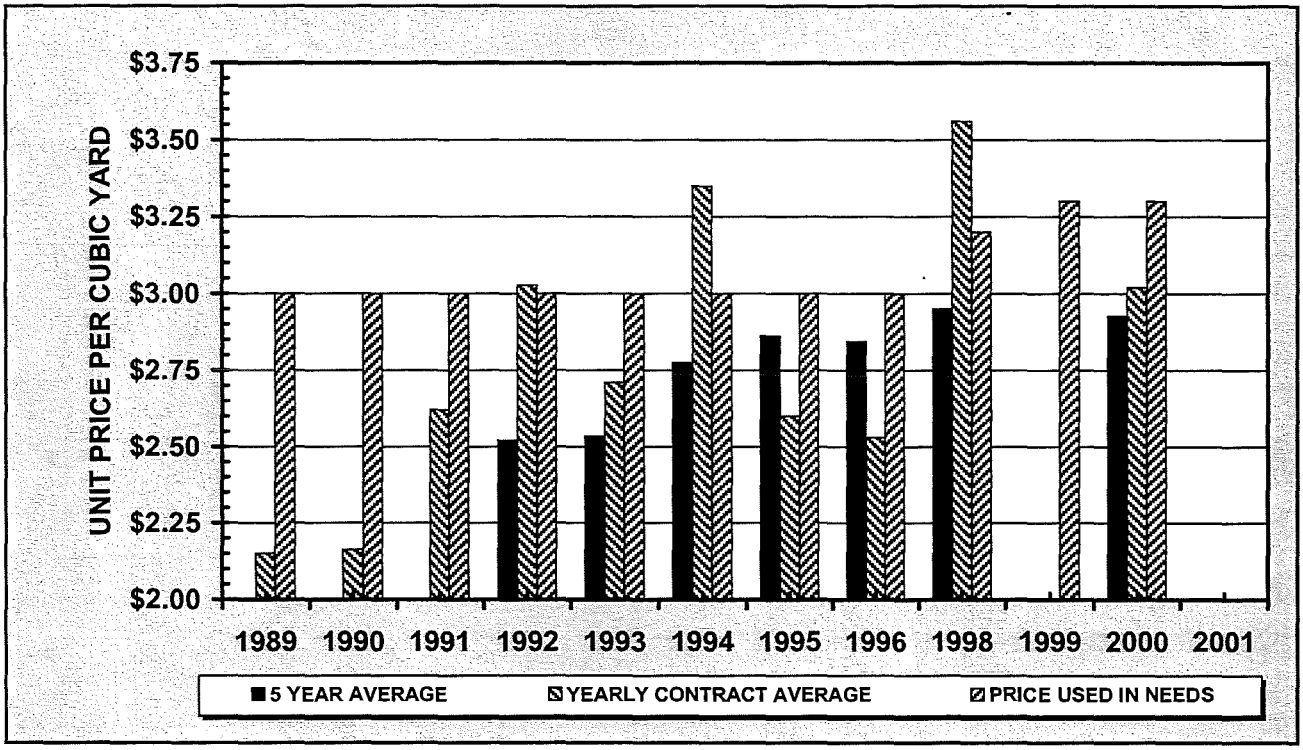
25 YEAR CONSTRUCTION NEEDS
FOR EACH INDIVIDUAL CONSTRUCTION ITEM *

16-Apr-01

ITEM	1999 APPORTIONMENT NEEDS COST	2000 APPORTIONMENT NEEDS COST	DIFFERENCE	2000 % OF THE TOTAL
Grading	$141,753,256	$147,387,078	$5,633,822	6.42%
Special Drainage	6,224,196	6,023,154	(201,042)	0.28%
Storm Sewer Adjustment	53,341,590	56,127,168	2,785,578	2.41%
Storm Sewer Construction	204,034,860	210,027,230	5,992,370	9.24%
Curb & Gutter Removal	21,055,349	22,742,724	1,687,375	0.95%
Sidewalk Removal	17,446,532	18,152,363	705,831	0.79%
Pavement Removal	43,685,625	48,362,205	4,676,580	1.98%
Tree removal	7,165,620	6,962,220	(203,400)	0.32%
SUBTOTAL GRADING	**$494,707,028**	**$515,784,142**	**$21,077,114**	**23.35%**
Gravel Base #2211	251,801,945	$262,799,878	10,997,933	11.90%
Bituminous Base #2331	99,263,037	107,222,205	7,959,168	4.85%
SUBTOTAL BASE	**$351,064,982**	**$370,022,083**	**$18,957,101**	**16.75%**
Bituminous Surface #2331	$2,559,744	$2,878,837	$319,093	0.13%
Bituminous Surface #2341	145,183,515	159,572,951	14,389,436	7.22%
Bituminous Surface #2361	24,676,385	24,270,689	(405,696)	1.10%
Surface Widening	1,228,475	1,162,636	(65,839)	0.05%
SUBTOTAL SURFACE	**$173,648,119**	**$187,885,113**	**$14,236,994**	**8.50%**
Gravel Shoulders #2221	$1,598,014	$1,714,493	$116,479	0.08%
SUBTOTAL SHOULDERS	**$1,598,014**	**$1,714,493**	**$116,479**	**0.08%**
Curb and Gutter	$130,454,032	$132,880,987	$2,426,955	6.01%
Sidewalk	165,490,100	176,747,885	11,257,785	8.00%
Traffic Signals	130,524,085	135,357,367	4,833,282	6.13%
Street Lighting	100,897,650	146,790,500	45,892,850	6.64%
Retaining Walls	15,333,579	15,650,379	316,800	0.71%
SUBTOTAL MISCELLANEOUS	**$542,699,446**	**$607,427,118**	**$64,727,672**	**27.50%**
TOTAL ROADWAY	**$1,563,717,589**	**$1,682,832,949**	**$119,115,360**	**76.17%**
Bridge	$116,779,206	$123,859,056	$7,079,850	5.61%
Railroad Crossings	43,490,075	48,992,000	5,501,925	2.22%
Maintenance	18,616,595	19,507,294	890,699	0.88%
Engineering	300,317,856	334,023,275	33,705,419	15.12%
SUBTOTAL OTHERS	**$479,203,732**	**$526,381,625**	**$47,177,893**	**23.83%**
TOTAL	**$2,042,921,321**	**$2,209,214,574**	**$166,293,253**	**100.00%**

*** Does not include the new MSAS cities of St. Joseph and Big Lake.**

EXCAVATION



NEEDS YEAR	NO. OF CITIES	QUANTITY	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5 YEAR AVERAGE CONTRACT PRICE
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	3.00	2.86
1996	68	1,691,036	4,272,539	2.53	3.00	2.84
1998	60	919,379	3,273,588	3.56	3.20	2.95
1999					3.30	
2000	56	1,157,353	3,490,120	3.02	3.30	2.93
2001						

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2001 NEEDS STUDY IS $3.40 PER CU. YD.

Note: There was no Unit Price Study in years 1997 and 1999, therefore the 2000 5-Year Average will only use the past FOUR Average Contract Prices.

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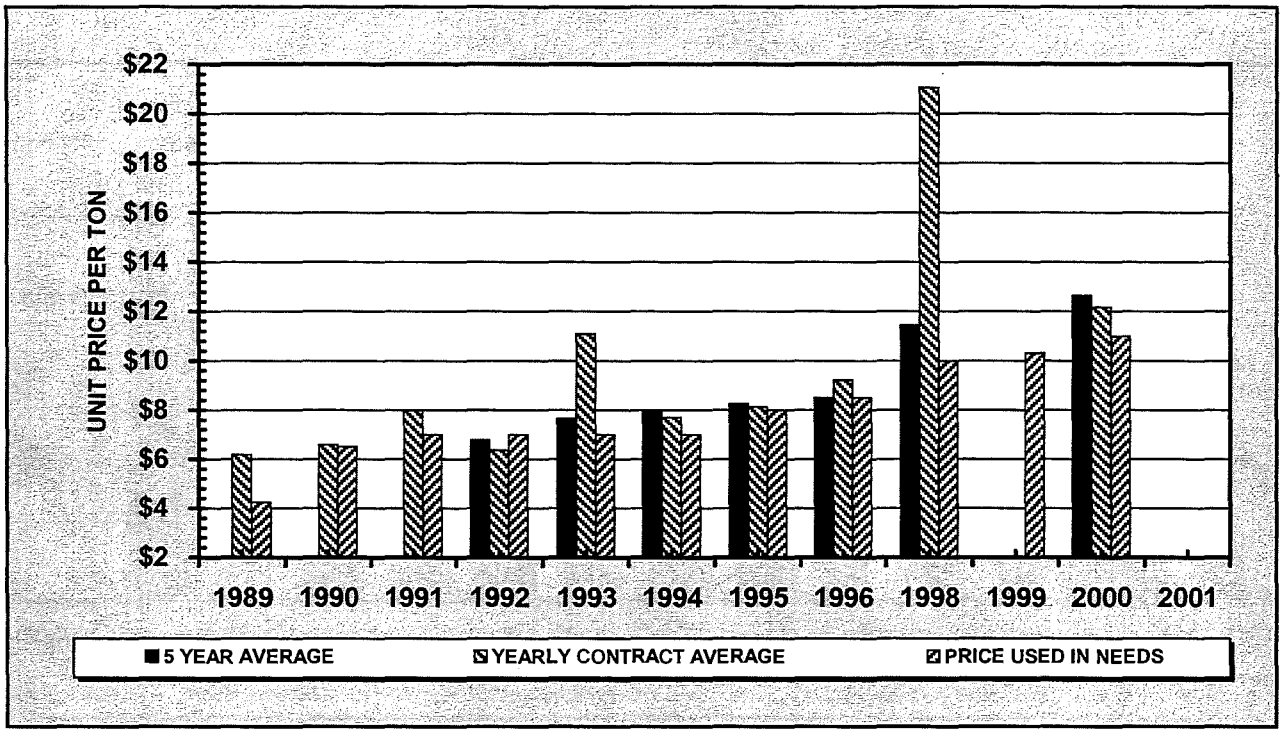
AGGREGATE SHOULDERING



NEEDS YEAR	NO. OF CITIES	QUANTITY	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5 YEAR AVERAGE CONTRACT PRICE
1989	7	3485	$21,554	$6.18	$4.25	-
1990	6	3714	24,444	6.58	6.50	-
1991	3	2334	18,624	7.98	7.00	-
1992	7	6285	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	4923	40,009	8.13	8.00	8.25
1996	6	3067	28,277	9.22	8.50	8.50
1998	2	60	1,263	21.05	10.00	11.44
1999					10.30	
2000	4	621	7,557	12.17	11.00	12.64
2001						

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2001 NEEDS STUDY IS $11.50 PER TON

Note: There was no Unit Price Study in years 1997 and 1999, therefore the 2000 5-Year Average will only use the past FOUR Average Contract Prices.

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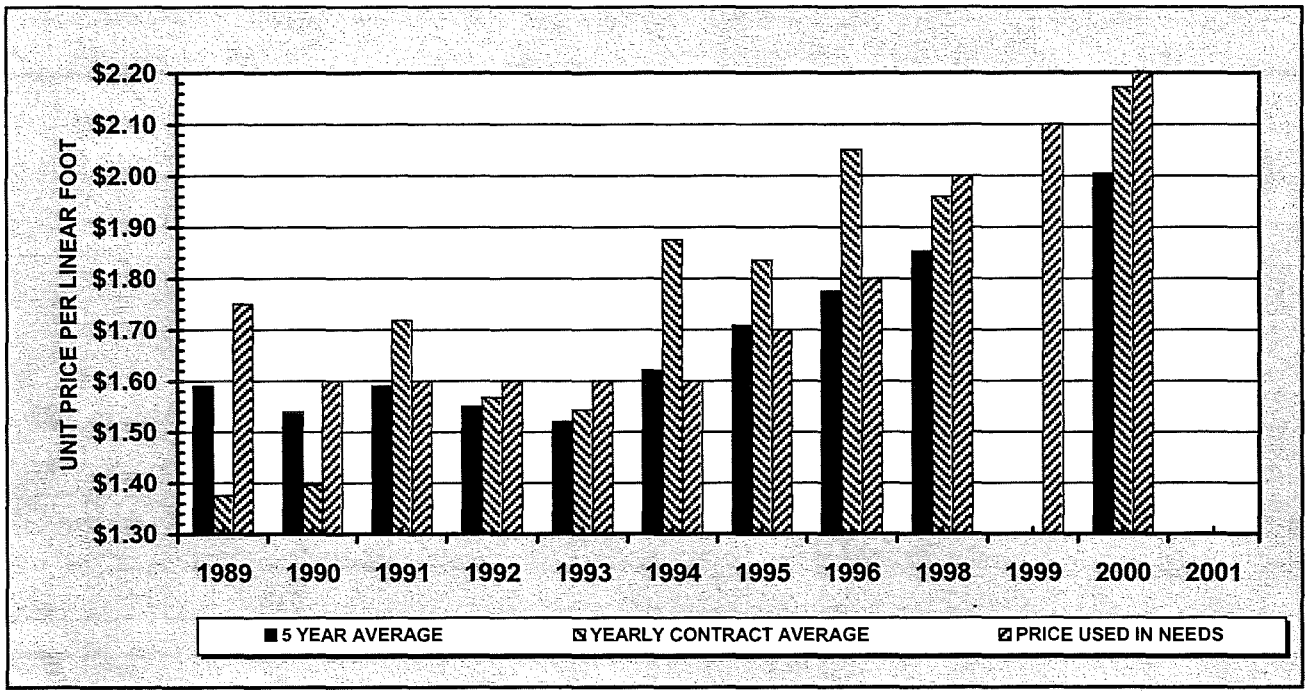
CURB & GUTTER REMOVAL #2104



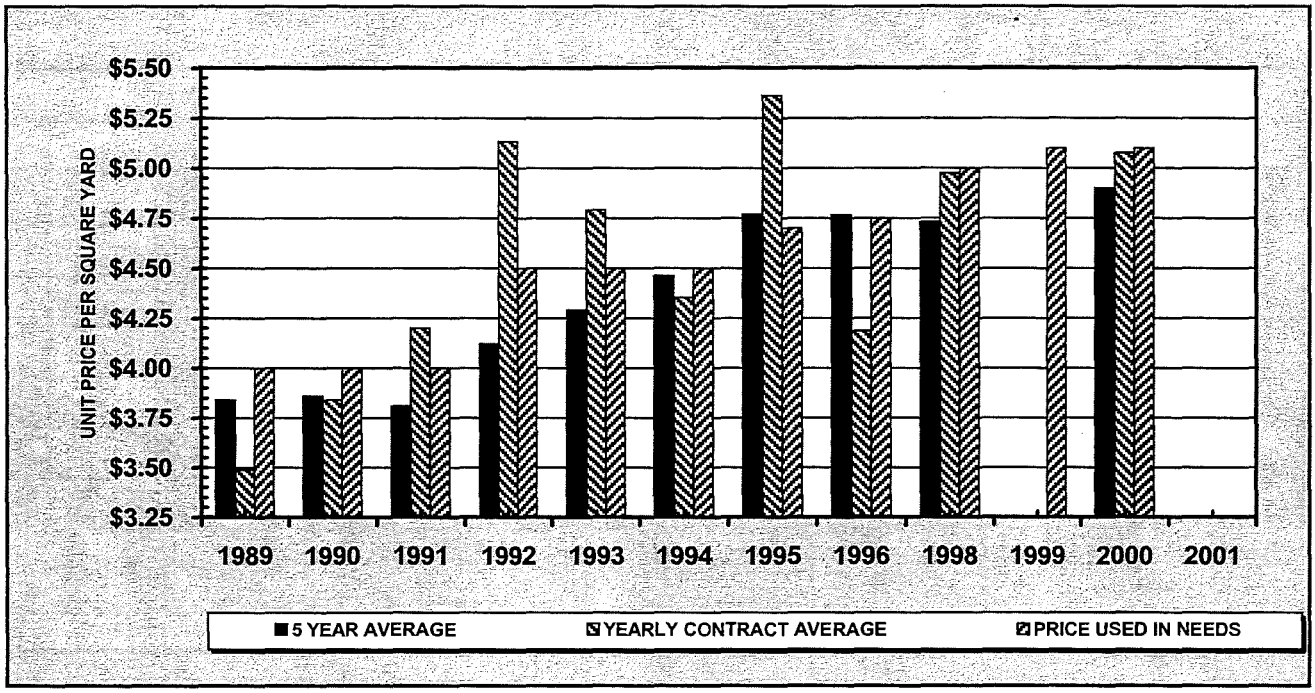
NEEDS YEAR	NO. OF CITIES	QUANTITY	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5 YEAR AVERAGE CONTRACT PRICE
1989	64	211,446	$290,721	$1.37	$1.75	$1.59
1990	38	215,935	301,389	1.40	1.60	1.54
1991	59	207,105	355,996	1.72	1.60	1.59
1992	58	152,992	239,845	1.57	1.60	1.55
1993	56	118,793	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	1.70	1.71
1996	62	142,362	291,935	2.05	1.80	1.77
1998	63	150,083	294,046	1.96	2.00	1.85
1999					2.10	
2000	53	114,421	248,505	2.17	2.20	2.00
2001						

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2001 NEEDS STUDY IS $2.30 PER LIN. FT.

Note: There was no Unit Price Study in years 1997 and 1999, therefore the 2000 5-Year Average will only use the past FOUR Average Contract Prices.

N:\MSAS\EXCEL\UNIT PRICE\UNIT PRICE BREAK OUT - 2001.XLS C&G REM. GRAPH

SIDEWALK REMOVAL #2105



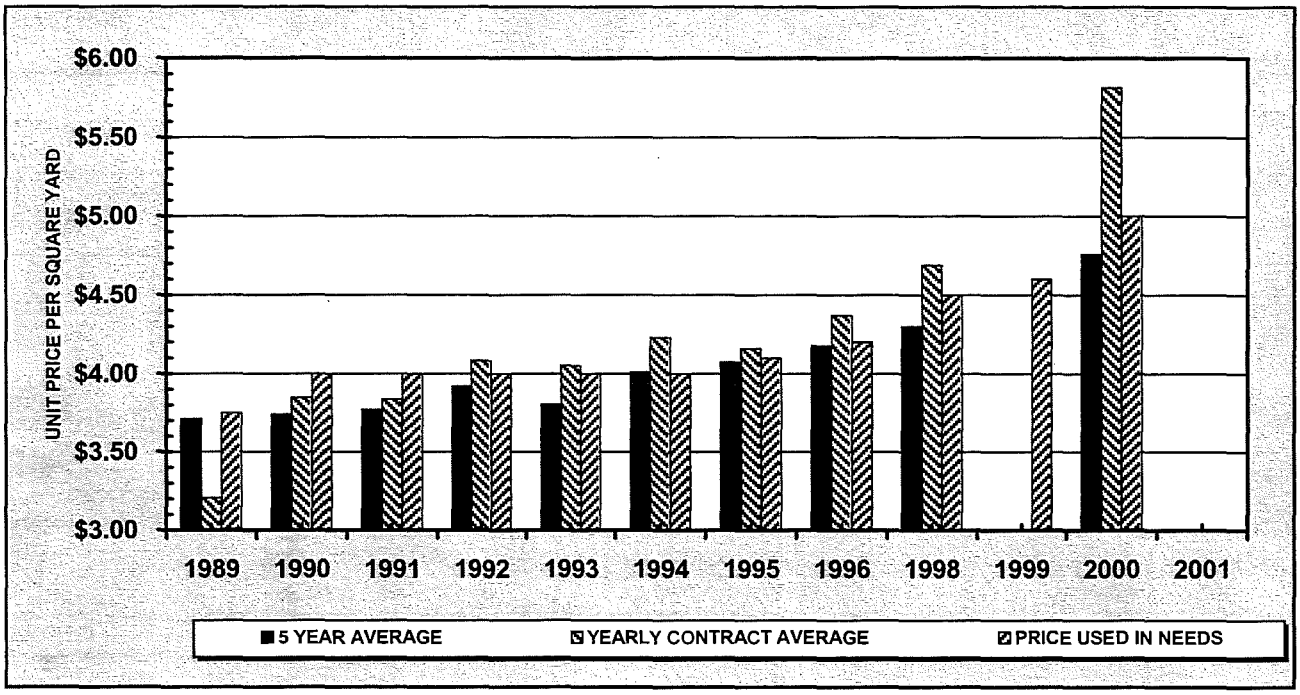
NEEDS YEAR	NO. OF CITIES	QUANTITY	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5 YEAR AVERAGE CONTRACT PRICE
1989	46	77,633	$270,831	$3.49	$4.00	$3.84
1990	41	50,017	192,021	3.84	4.00	3.86
1991	43	71,868	301,912	4.20	4.00	3.81
1992	45	57,606	295,735	5.13	4.50	4.12
1993	40	43,017	206,147	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	4.70	4.77
1996	46	49,759	208,305	4.19	4.75	4.77
1998	41	36,967	183,894	4.97	5.00	4.73
1999					5.10	
2000	37	44,143	224,067	5.08	5.10	4.90
2001						

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2001 NEEDS STUDY IS $5.35 PER SQ.YD.

Note: There was no Unit Price Study in years 1997 and 1999, therefore the 2000 5-Year Average will only use the past FOUR Average Contract Prices.

N:\MSAS\EXCEL\UNIT PRICE\UNIT PRICE BREAK OUT - 2001.XLS SIDEWALK REM. GRAPH

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
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	4.10	4.07
1996	28	78,122	341,385	4.37	4.20	4.18
1998	24	110,941	520,259	4.69	4.50	4.30
1999					4.60	
2000	15	68,760	399,759	5.81	5.00	4.76
2001						

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2001 NEEDS STUDY IS $5.25 PER SQ. YD.

Note: There was no Unit Price Study in years 1997 and 1999, therefore the 2000 5-Year Average will only use the past FOUR Average Contract Prices.

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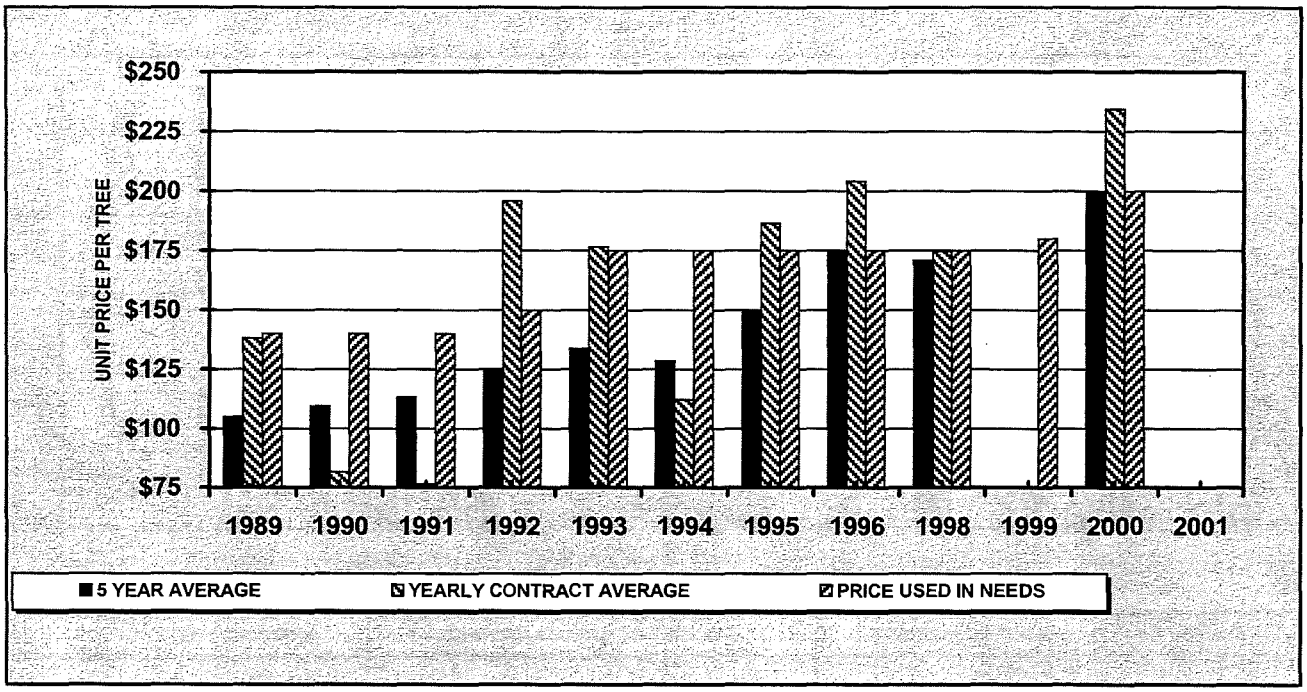
TREE REMOVAL #2101



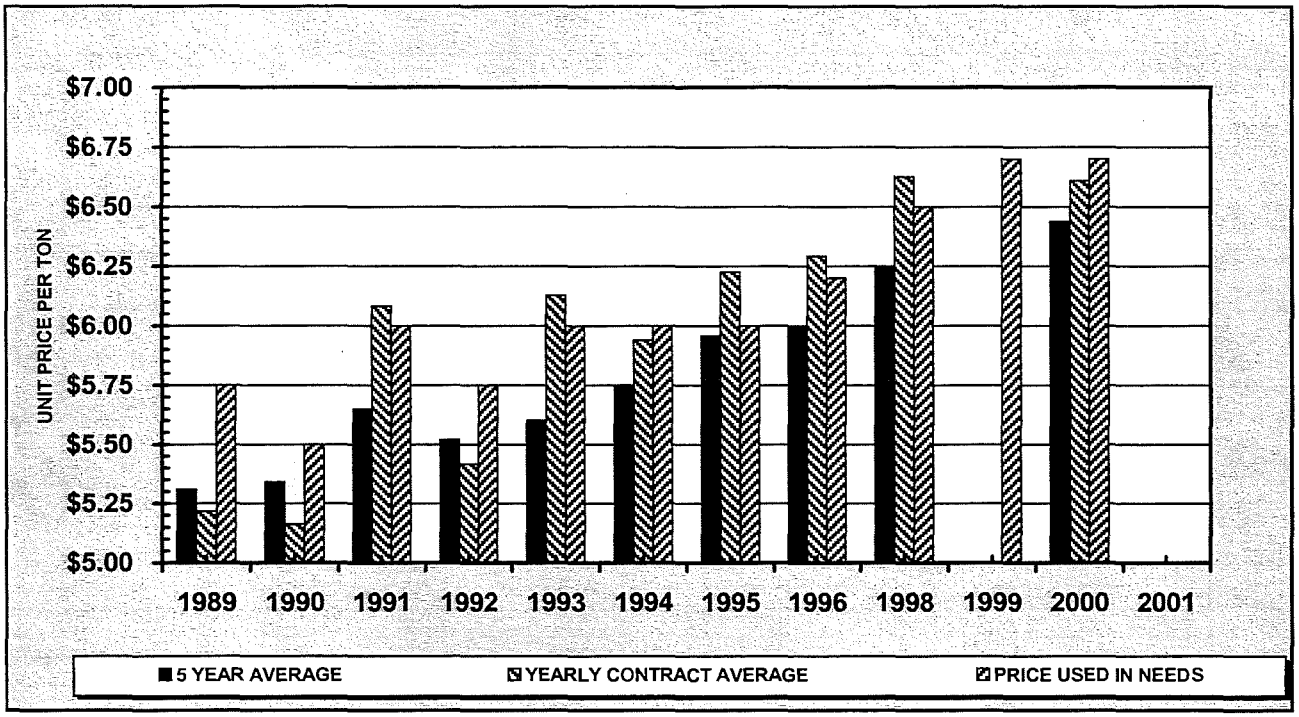
NEEDS YEAR	NO. OF CITIES	QUANTITY	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5 YEAR AVERAGE CONTRACT PRICE
1989	40	884	$122,030	$138.04	$140.00	$104.88
1990	37	1,659	135,381	81.60	140.00	109.35
1991	35	1,869	142,888	76.45	140.00	113.19
1992	39	867	169,797	195.84	150.00	125.11
1993	34	853	150,442	176.47	175.00	133.68
1994	35	1,876	210,444	112.15	175.00	128.50
1995	41	1,136	211,912	186.54	175.00	149.49
1996	33	783	159,884	204.19	175.00	175.04
1998	28	779	136,044	174.64	175.00	170.80
1999					180.00	
2000	24	593	138,966	234.34	200.00	199.93
2001						

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2001 NEEDS STUDY IS $210.00 PER TREE

Note: There was no Unit Price Study in years 1997 and 1999, therefore the 2000 5-Year Average will only use the past FOUR Average Contract Prices.

N:\MSAS\EXCEL\UNIT PRICE\UNIT PRICE BREAK OUT - 2001.XLS CLEARING & GRUBBING GRAPH

CLASS 5 AGGREGATE BASE #2211



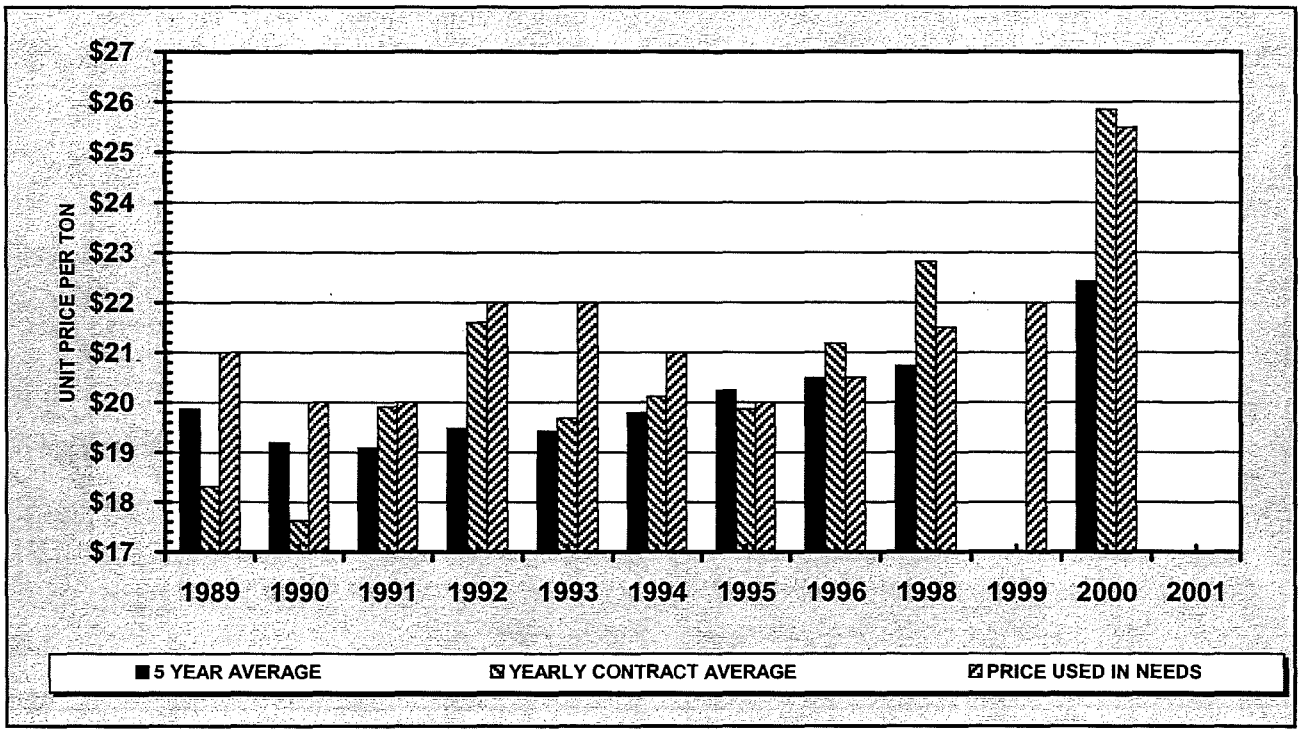
NEEDS YEAR	NO. OF CITIES	QUANTITY	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5 YEAR AVERAGE CONTRACT PRICE
1989	70	648,988	$3,385,938	$5.22	$5.75	$5.31
1990	68	715,922	3,696,421	5.16	5.50	5.34
1991	70	553,874	3,368,664	6.08	6.00	5.65
1992	69	650,835	3,525,629	5.42	5.75	5.52
1993	60	621,247	3,807,092	6.13	6.00	5.60
1994	70	660,174	3,921,230	5.94	6.00	5.75
1995	61	491,608	3,060,585	6.23	6.00	5.96
1996	68	593,314	3,733,431	6.29	6.20	6.00
1998	67	470,633	3,118,365	6.63	6.50	6.24
1999					6.70	
2000	58	680,735	4,498,220	6.61	6.70	6.44
2001						

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2001 NEEDS STUDY IS $6.70 PER TON

Note: There was no Unit Price Study in years 1997 and 1999, therefore the 2000 5-Year Average will only use the past FOUR Average Contract Prices.

N:\MSAS\EXCEL\UNIT PRICE\UNIT PRICE BREAK OUT - 2001.XLS AGG. BASE - 2211 GRAPH

BITUMINOUS BASE OR SURFACE #2331



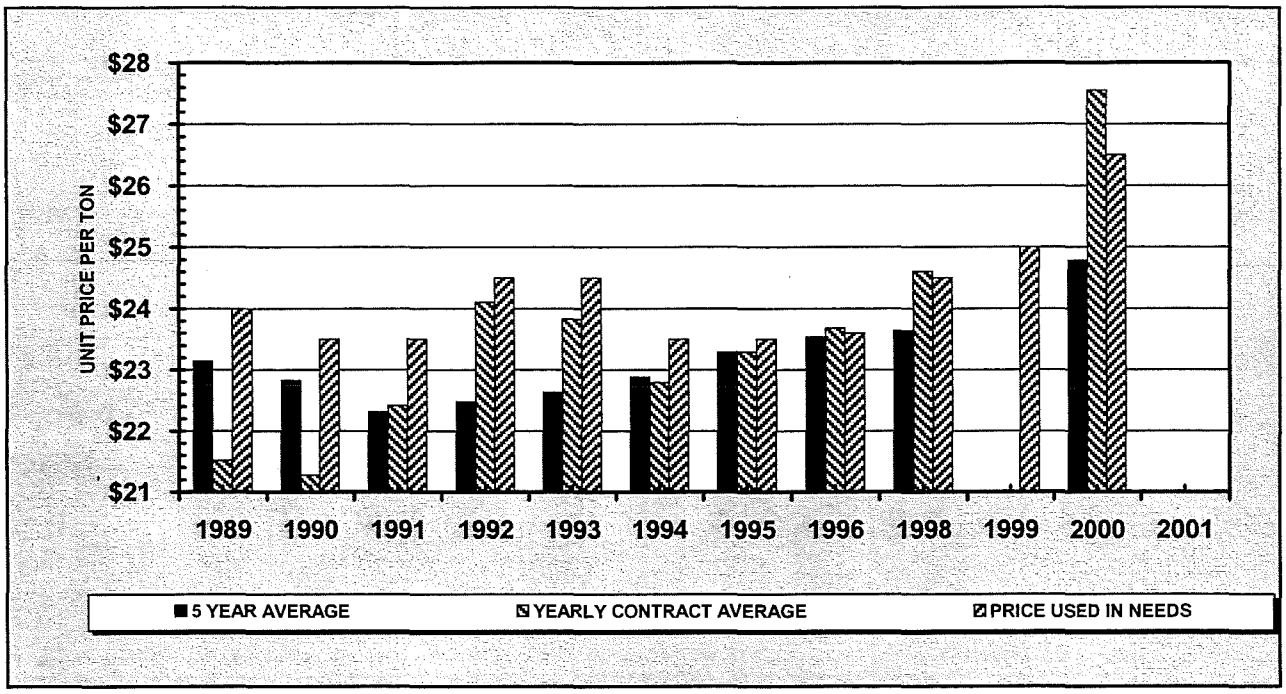
NEEDS YEAR	NO. OF CITIES	QUANTITY	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5 YEAR AVERAGE CONTRACT PRICE
1989	70	316,333	$5,793,245	$18.31	$21.00	$19.87
1990	68	313,022	5,517,034	17.63	20.00	19.19
1991	70	349,058	6,952,316	19.92	20.00	19.09
1992	69	358,244	7,739,246	21.60	22.00	19.48
1993	60	243,491	4,791,236	19.68	22.00	19.43
1994	70	265,414	5,339,712	20.12	21.00	19.79
1995	61	190,763	3,791,009	19.87	20.00	20.24
1996	68	188,898	4,000,168	21.18	20.50	20.49
1998	67	183,962	4,197,677	22.82	21.50	20.73
1999					22.00	
2000	48	152,926	3,954,123	25.86	25.50	22.43
2001						

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2001 NEEDS STUDY IS $30.00 PER TON

Note: There was no Unit Price Study in years 1997 and 1999, therefore the 2000 5-Year Average will only use the past FOUR Average Contract Prices.

N:\MSAS\EXCEL\UNIT PRICE\UNIT PRICE BREAK OUT - 2001.XLS BIT. BASE & SURF. - 2331 GRAPH

BITUMINOUS SURFACE #2341



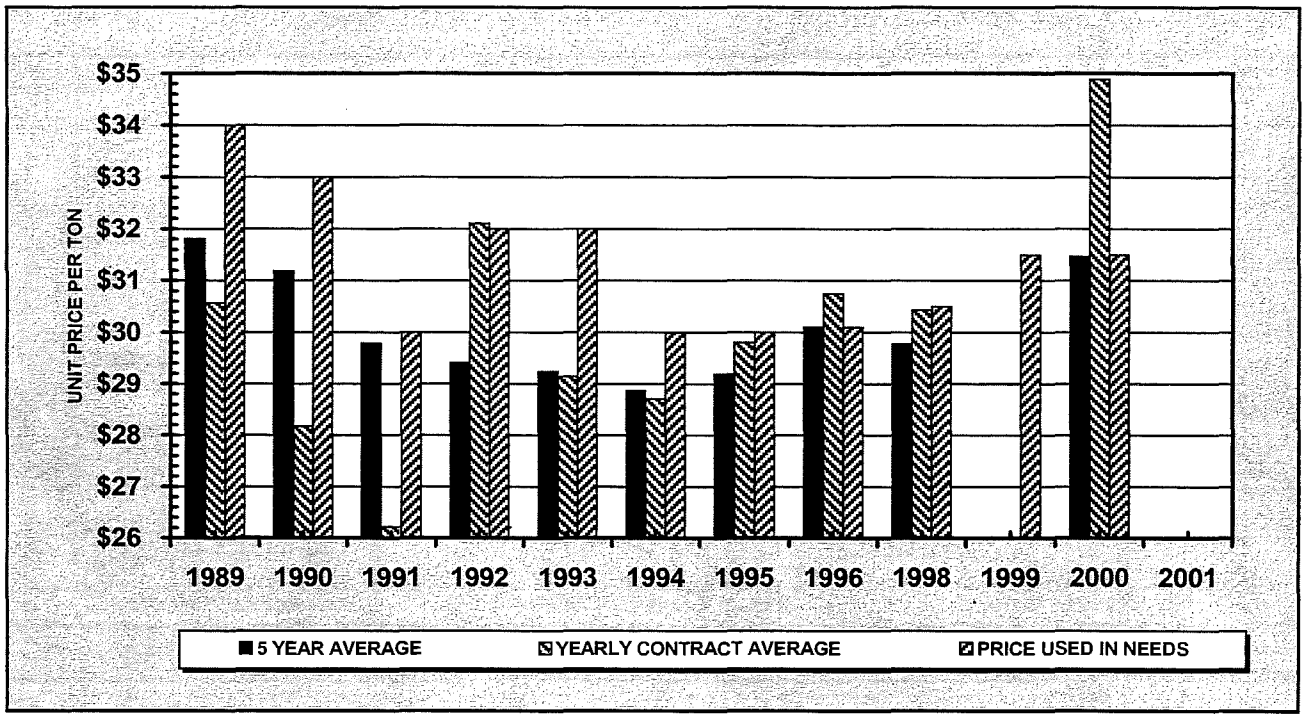
NEEDS YEAR	NO. OF CITIES	QUANTITY	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5 YEAR AVERAGE CONTRACT PRICE
1989	58	144,986	$3,119,592	$21.52	$24.00	$23.14
1990	44	127,267	2,707,906	21.28	23.50	22.83
1991	48	125,102	2,804,228	22.42	23.50	22.31
1992	31	77,735	1,873,836	24.11	24.50	22.48
1993	66	160,587	3,825,967	23.82	24.50	22.63
1994	52	201,120	4,584,015	22.79	23.50	22.88
1995	58	190,983	4,448,398	23.29	23.50	23.29
1996	65	169,911	4,023,193	23.68	23.60	23.54
1998	60	158,320	3,895,038	24.60	24.50	23.64
1999					25.00	
2000	51	137,663	3,792,496	27.55	26.50	24.78
2001						

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2001 NEEDS STUDY IS $30.00 PER TON

Note: There was no Unit Price Study in years 1997 and 1999, therefore the 2000 5-Year Average will only use the past FOUR Average Contract Prices.

N:\MSAS\EXCEL\UNIT PRICE\UNIT PRICE BREAK OUT - 2001.XLS BIT. BASE & SURF. - 2341 GRAPH

BITUMINOUS SURFACE #2361



NEEDS YEAR	NO. OF CITIES	QUANTITY	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5 YEAR AVERAGE CONTRACT PRICE
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	29.79
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	30.00	29.19
1996	7	12,140	373,248	30.75	30.10	30.10
1998	5	4,770	145,148	30.43	30.50	29.77
1999					31.50	
2000	4	5,753	200,706	34.89	31.50	31.47
2001						

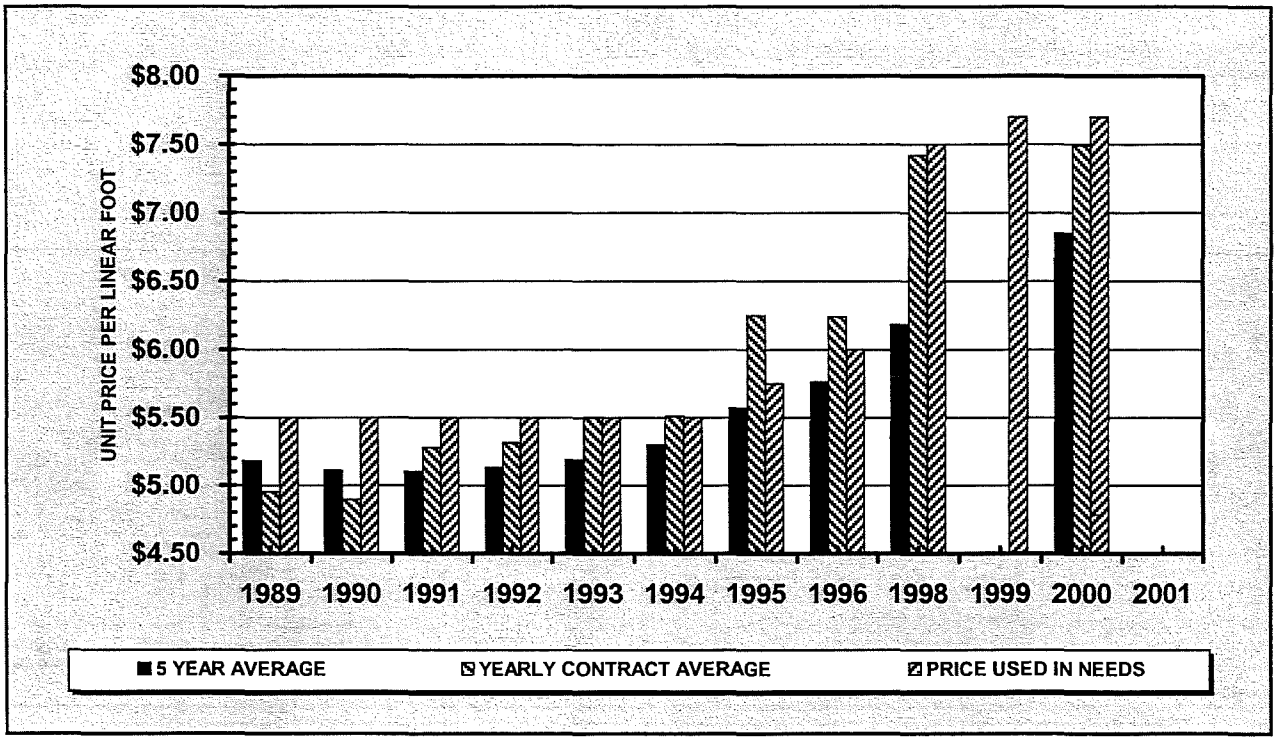
SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2001 NEEDS STUDY IS $33.00 PER TON

Note: There was no Unit Price Study in years 1997 and 1999, therefore the 2000 5-Year Average will only use the past FOUR Average Contract Prices.

N:\MSAS\EXCEL\UNIT PRICE\UNIT PRICE BREAK OUT - 2001.XLS BIT. SURF. - 2361 GRAPH

23-Apr-01

CURB AND GUTTER CONSTRUCTION



NEEDS YEAR	NO. OF CITIES	QUANTITY	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5 YEAR AVERAGE CONTRACT PRICE
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	5.75	5.57
1996	72	453,022	2,828,565	6.24	6.00	5.76
1998	64	347,973	2,581,523	7.42	7.50	6.18
1999					7.70	
2000	55	418,211	3,133,900	7.49	7.70	6.85
2001						

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2001 NEEDS STUDY IS $7.70 PER LIN. FT.

Note: There was no Unit Price Study in years 1997 and 1999, therefore the 2000 5-Year Average will only use the past FOUR Average Contract Prices.

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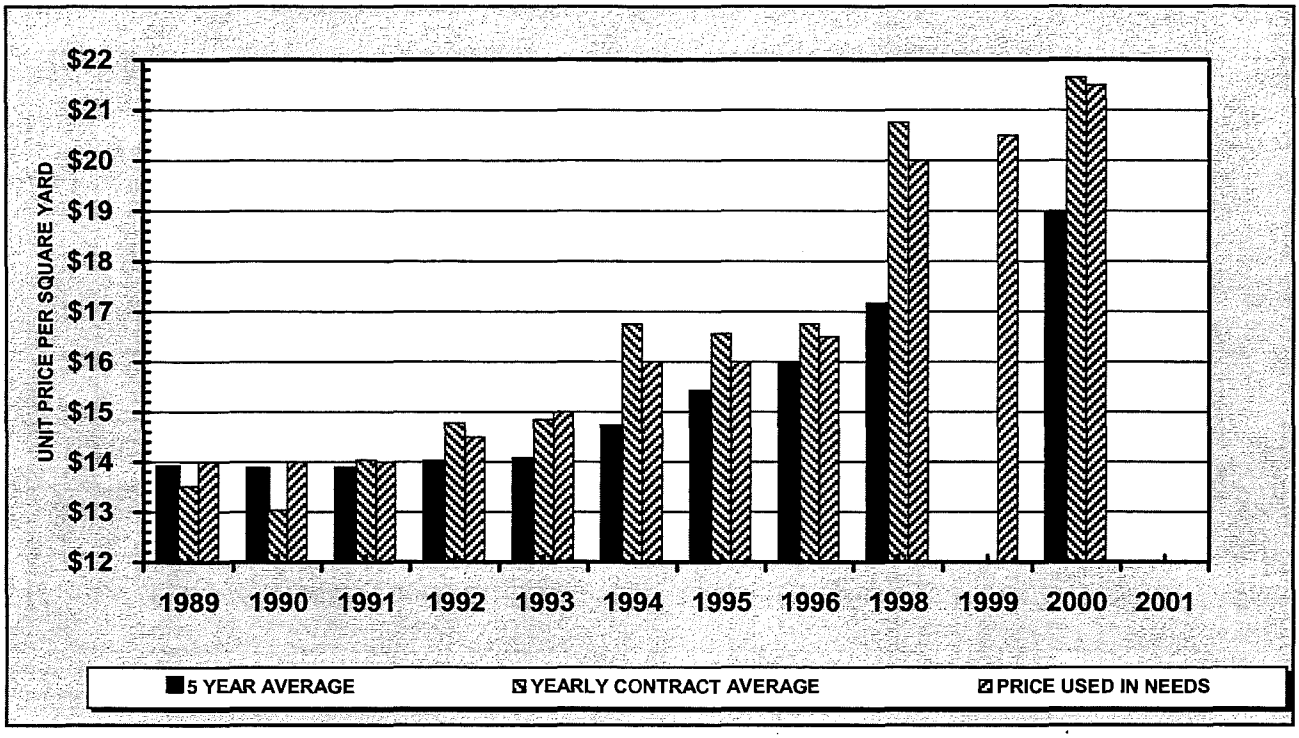
SIDEWALK CONSTRUCTION #2521



NEEDS YEAR	NO. OF CITIES	QUANTITY	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5 YEAR AVERAGE CONTRACT PRICE
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	16.00	15.40
1996	60	94,140	1,577,035	16.75	16.50	15.94
1998	54	71,578	1,486,101	20.76	20.00	17.13
1999					20.50	
2000	45	88,562	1,917,075	21.65	21.50	18.93
2001						

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2001 NEEDS STUDY IS $22.00 PER SQ. YD.

Note: There was no Unit Price Study in years 1997 and 1999, therefore the 2000 5-Year Average will only use the past FOUR Average Contract Prices.

N:\MSAS\EXCEL\UNIT PRICE\UNIT PRICE BREAK OUT - 2001.XLS SIDEWALK CONST. GRAPH

UNIT PRICE STUDY

Both MN/DOT and State Aid bridges are used so that more bridges determine the unit price. In addition to normal bridge materials and construction costs, prorated mobilization, bridge removal and riprap costs are included if these items are included in the contract. Traffic control, field office, and field lab costs are not included.

MN/DOT's hydraulic office furnished a recommendation of costs for storm sewer construction and adjustment based on 2000 construction costs. Special drainage costs are computed by the MN/DOT estimating unit based on the length and number of culverts per mile detailed by the Screening Board.

MN/DOT railroad office furnished a letter detailing railroad costs from 2000 construction projects.

Due to lack of data, a study is not done for traffic signals, maintenance, and engineering. Every segment, except those eligible for THTB funding, receives needs for traffic signals, lighting, engineering, and maintenance. The unit prices used in the 2000 needs study are found in the Screening Board resolutions in the back of this booklet.

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)
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	69,100	223,000	20,000	20,000-80,000
1996	71,200	229,700	20,000	20,000-80,000
1998	76,000	245,000	20,000	24,990-99,990
1999	79,000	246,000	35,000	24,990-99,990
2000	80,200	248,500	50,000	24,990-99,990
2001				

* 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 2000:

	Storm Sewer. Adjustment	Storm Sewer Construction
2001	$80,400	$248,000

SUBCOMMITTEE'S RECOMMENDED PRICES FOR 2000:

	Storm Sewer. Adjustment	Storm Sewer Construction	Lighting	Signals
2001	$80,400	$248,000	$78,000	$120,000

RAILROAD CROSSINGS NEEDS COSTS

NEEDS YEAR	SIGNS (Per Unit)	PAVEMENT MARKING	SIGNALS (Low Speed) (Per Unit)	SIGNALS & GATES (High Speed) (Per Unit)	CONCRETE CROSSING MATERIAL (Per foot)
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	800	750	80,000	110,000	750
1996	800	750	80,000	110,000	750
1998	1,000	750	80,000	130,000	750
1999	1,000	750	85,000	135,000	850
2000	1,000	750	110,000	150,000	900
2001					

MN\DOT'S RAILROAD OFFICE RECOMMENDED PRICES FOR 2000:

	Signs	Pavement Marking	Signals	Sig. & Gates	Concrete X-ing Surf.
2001	$1,000	$750	$120,000	$135-185,000	$900

SUBCOMMITTEE'S RECOMMENDED PRICES FOR 2000:

2001	$1,000	$750	$120,000	$160,000	$900

Minnesota Department of Transportation

Memo

Office of Bridges and Structures
3485 Hadley Avenue North
Oakdale, MN 55128-3307

Date: March 23, 2001

To: Marshall Johnston
Manager, Municipal State Aid Street Needs Section

From: Mike Leuer MAL
State Aid Hydraulic Technician

Phone: (651) 747-2167

Subject: State Aid Storm Sewer
Construction Costs for 2000

We have completed our analysis of storm sewer construction costs incurred for 2000 and the following assumptions can be utilized for planning purposes per roadway mile:

- approximately $248,000 for new construction, and
- approximately $80,400 for adjustment of existing systems

The preceding amounts are based on the average cost per mile of State Aid storm sewer using unit prices from approximately 153 plans for 2000.

CC: J. L. Boynton (file)

Minnesota Department of Transportation

Memo

Office of Bridges and Structures
3485 Hadley Avenue North
Oakdale, MN 55128-3307

Date: May 3, 2001

To: Marshall Johnston
Manager, Municipal State Aid Street Needs Section

From: Mike Leuer
State Aid Hydraulic Technician

Phone: (651) 747-2167

Subject: Annual State Aid Storm Sewer Construction Costs

The basis for the construction costs submitted yearly have been storm sewer items such as catch basins and leads and mains and manholes. There has been no cost accounting included for such items as excavation for storm water ponding, traffic control, pavement restoration, landscaping or other miscellaneous construction items.

Although storm waster ponding has been more prevalent in recent years due to an increase in pollutant awareness, such as the National Pollutant Discharge Elimination System (NPDES) regulations, monitored by the Minnesota Pollution Control Agency, the cost of excavating these ponds (around $2.00 per cubic yard) is fairly inexpensive. For this reason these costs have not been included with the sewer estimates previously sent. The pond construction costs for new storm sewer systems would be greater than those for existing systems because existing systems requirements for pond construction are not as stringent.

CC: J. L. Boynton (file)

Office Memorandum

STATE OF MINNESOTA
DEPARTMENT OF TRANSPORTATION
MS 470, Transportation Building

TO: Marshall Johnston
Needs Unit - State Aid

DATE: April 9, 2001

FROM: Robert G. Swanson, Director
Railroad Administration

PHONE: 651-296-2472

SUBJECT: Projected Railroad Grade Crossing Improvements - Cost for 2001

We have projected 2001 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	$120,000.00
Signals and Gates:		
(Multiple Track - High & Low Speed)** (Average Price)	per System	$135-185,000.00
Signs (Advance warning signs & crossbucks	per Crossing	$1000.00
Pavement Markings		
(Tape)	per Crossing	$5,500.00
(Paint)	per Crossing	$750.00
Crossing Surfaces: (Concrete Crossing Surface) Complete reconstruction of the crossing. Labor and Materials	per track ft	$900.00

* 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.

Please let me know if you have any questions, comments, or concerns.

cc: Rashmi Brewer
Gene Dahlke
Paul Delarosa
Tim Spencer

Special Drainage Costs for Rural Segments
2001

On April 19, 1996, the Needs Study Subcommittee requested background information on how this unit price is determined. The following minutes are taken from the Needs Study Subcommittee meeting of March 19, 1990:

> *Rural section drainage needs: some cities have a certain amount of rural section streets or roads which are unlikely to ever require curb and gutter section and storm sewers, that is, urban section needs. It would seem that they should draw some needs however for ditching, driveway culverts, centerline culverts, rip-rap, etc. There are two ways to handle this inequity, come up with an average cost per mile, or have cities submit special drainage needs. After considerable discussion it was decided to recommend cost of $25,000 per mile - based on an average of 25 driveways per mile and four centerline pipes per mile. If cities feel this does not represent their needs or if they have out of the ordinary drainage needs they have the option of submitting special drainage needs. These would be subject to approval by the District State Aid Engineer.*

At the April 19, 1994 meeting of the Needs Study Subcommittee, the unit price for special drainage was changed to $26,000 per mile. There is no indication in the minutes as to why this change was made.

After consulting with the MN/DOT estimating unit and research in the State Aid manual and the Drainage manual, the following determinations have been made:

For Entrance Culverts:

1) The recommended residential driveway width onto a state aid roadway is 16 feet. (State Aid Manual Fig. D(2) 5-892.210).
2) The minimum pipe diameter of Side Culverts shall be 18 inches. The minimum cover shall be one foot, however, it is desirable to have 1.25 feet or more of cover on side roads. (Drainage Manual 5-294.302).
3) The MN/DOT estimating unit recommends using a 18-inch Galvanized Steel Pipe and two aprons as the standard for an entrance culvert to a rural segment on the Municipal State Aid Street system.
4) For construction needs purposes the MN/DOT estimating unit recommends using $20.00 per foot as a cost for 18" GSP and $120.00 per apron.
5) Using a 3:1 inslope for the driveway with a 4' deep ditch (the culvert would have 2.5 feet of cover), the length of the pipe would be 31 feet plus two aprons.
6) Therefore, the estimated construction needs cost per entrance would be $860.00.

Using the 1990 Needs Study Subcommittee recommended number of 25 entrances per mile, the cost of Side Culverts per mile would be $21,500.

For ℄ Culverts:

1) The minimum pipe diameter of ℄ culverts shall be 24 inches. The minimum cover shall be 1.25 feet to the top of rigid pavement and 1.75 feet to the top of flexible pavement. (Drainage Manual 5-294.302).
2) The MN/DOT estimating unit recommends using a 30-inch Reinforced Concrete Pipe and two aprons as the standard for a centerline culvert on a rural segment of the Municipal State Aid Street system.
3) For construction needs purposes the MN/DOT estimating unit recommends using $52.00 per foot as a cost for 30" RCP) and $625 per apron.
4) Using a 40' roadbed width, a 4:1 inslope and a 4' ditch depth (the culvert would have 1.5 feet of cover), the length of the culvert would be 52' plus two aprons.
5) Therefore, the estimated construction needs cost per ℄ culvert would be $3,954.

Using the 1990 Needs Study Subcommittee recommended number of four ℄ culverts per mile, the cost of centerline culverts per mile would be $15,816.

By adding the cost of the 25 Side Culverts and the 4 ℄ culverts, the 2001 estimated construction needs cost per mile for Special Drainage would be **$41,270** per mile.

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2001 NEEDS STUDY IS ___$41,000___ PER MILE.

BRIDGES LET IN CALENDAR YEAR 2000

BRIDGE LENGTH 0-149 FEET

NEW BRIDGE NUMBER	PROJECT NUMBER	LENGTH	DECK AREA	BRIDGE COST	COST PER SQ. FT.
L2949	SAP 001-599-019	61	1,099	$94,019.00	$86
8540	SAP 008-599-036	88	2,728	187,436.00	69
9524	SP 009-590-001	115	1,380	187,176.00	136
9522	SP 009-661-013	71	3,728	280,602.00	75
9523	SP 009-661-014	115	9,646	510,582.00	53
14527	SP 014-627-005	120	4,331	230,948.00	53
14535	SAP 014-627-006	45	1,530	129,425.00	85
16519	SP 016-598-004	47	1,692	204,507.00	121
17530	SP 017-601-017	75	3,171	220,516.98	70
17529	SP 017-602-017	84	3,528	229,742.00	65
20550	SP 020-598-007	101	3,535	230,236.50	65
25588	SP 025-598-008	59	2,055	134,247.00	65
25589	SAP 025-598-012	57	1,971	125,651.00	64
25591	SAP 025-599-067	66	2,297	211,138.00	92
25587	SAP 025-599-068	81	2,814	222,620.00	79
25594	SAP 025-599-070	111	3,418	308,716.00	90
25590	SAP 025-599-073	70	2,152	172,106.00	80
43533	SP 027-601-027	149	6,956	357,268.00	51
31544	SAP 031-598-010	97	3,013	188,498.00	63
31542	SAP 031-631-002	28	840	113,728.00	135
35525	SP 035-599-023	81	2,835	186,086.00	66
40519	SAP 040-597-003	74	2,509	198,673.00	79
43537	SAP 043-599-019	127	4,452	239,904.00	54
45550	SP 045-599-119	104	3,661	216,276.00	59
45561	SP 045-599-132	105	3,676	252,105.50	69
46571	SAP 046-599-058	82	2,952	195,908.00	66
46556	SP 046-626-019	80	3,417	251,777.38	74
46569	SAP 046-644-011	36	1,396	166,603.00	119
47534	SAP 047-625-012	74	2,886	183,377.00	64
50581	SAP 050-599-079	110	3,413	209,416.00	61
52519	SAP 052-599-018	87	2,663	184,164.00	69
55540	SAP 055-599-069	53	1,820	161,910.00	89
58540	SP 058-598-014	105	4,030	303,248.00	75
60542	SP 060-622-005	123	5,412	310,266.00	57
61512	SP 061-618-027	111	4,662	261,665.50	56
62539	SAP 062-603-004	52	3,764	290,880.00	77
62588	SP 062-644-016	140	12,022	927,895.00	77
62569	SP 062-646-012	143	7,007	784,639.00	112
64562	SAP 064-615-012	126	4,855	394,086.00	81
65543	SAP 065-601-012	101	4,287	305,997.00	71
66531	SAP 066-616-009	109	5,824	435,877.00	75
67540	SP 067-603-016	143	5,582	358,416.40	64
69543	SP 069-598-024	103	3,552	182,870.00	51
78510	SP 078-604-015	49	1,900	132,998.00	70
82508	SP 082-621-021	76	2,964	210,000.00	71
83538	SP 083-598-014	72	2,448	142,134.00	58
83540	SP 083-599-055	108	3,322	183,755.00	55
86519	SAP 086-614-007	131	6,196	457,510.00	74
87554	SP 087-602-011	90	3,510	191,097.50	54
27A55	SP 091-090-001	40	1,327	180,495.00	136
27A56	SP 091-090-001	40	1,327	181,560.00	137
27A66	SP 091-090-001	47	2,540	242,580.00	96
27A57	SAP 132-080-001	47	2,372	259,478.00	109
27A48	SP 163-090-001	129	1,548	143,864.00	93
01014	TH	62	3,173	$208,776.14	$66
02038	TH	68	3,154	309,963.93	98
05014	TH	90	4,532	265,026.60	58
12012	TH	101	5,089	292,787.98	58
24006	TH	94	7,387	652,968.86	88
58007	TH	72	3,638	232,050.95	64
69119	TH	87	3,358	197,493.82	59
73032	TH	140	7,072	541,096.43	77
State Aid Projects			**188,014**	**$13,666,673.76**	**$73**
Trunk Hightway Projects			**37,403**	**2,700,164.71**	**72**
TOTALS			***221,590***	***$16,085,383.47***	***$73***

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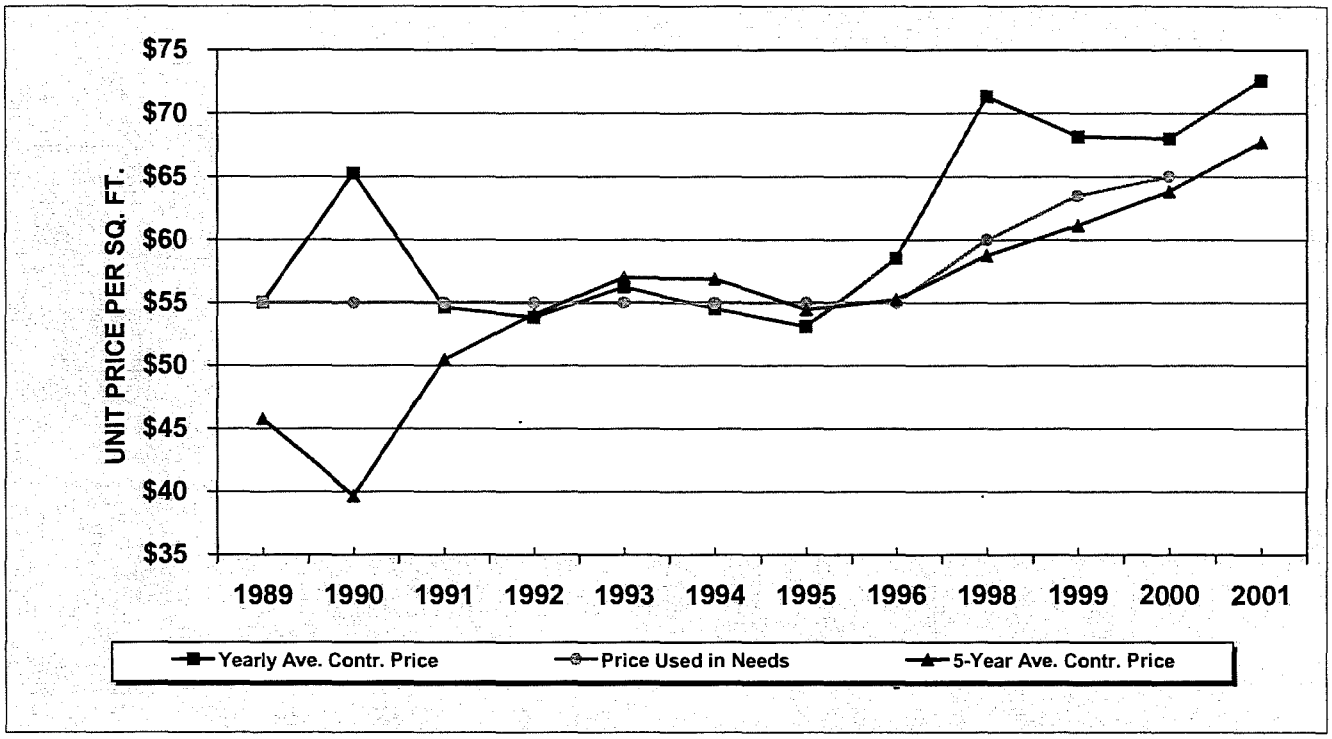
BRIDGE COST

O-149 FEET



NEEDS YEAR	NUMBER OF PROJECTS	DECK AREA	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5-YEAR AVERAGE CONTRACT PRICE
1989	11	35,733	$1,966,077	$55.02	$55.00	$45.78
1990	42	214,557	14,003,285	65.27	55.00	39.64
1991	37	136,770	7,472,265	54.63	55.00	50.46
1992	39	147,313	7,929,250	53.83	55.00	54.05
1993	38	190,400	10,709,785	56.25	55.00	57.00
1994	49	208,289	11,362,703	54.55	55.00	56.91
1995	32	124,726	6,627,018	53.13	55.00	54.48
1996	35	152,105	8,900,177	58.51	55.00	55.25
1998	52	191,385	13,651,209	71.33	60.00	58.76
1999	53	193,950	13,219,596	68.16	63.50	61.14
2000	54	210,895	14,341,592	68.00	65.00	63.83
2001	62	221,590	16,085,383	72.59		67.72

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2001 NEEDS STUDY IS $68.00 PER SQ. FT.

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BRIDGES LET IN CALENDAR YEAR 2000

BRIDGE LENGTH 150-499 FEET

NEW BRIDGE NUMBER		PROJECT NUMBER	LENGTH	DECK AREA	BRIDGE COST	COST PER SQ. FT.
4520	SP	004-599-042	174.28	6,718	$383,660.40	$57
27A58	SP	027-701-005	260.40	11,536	1,590,250.00	138
60540	SP	060-599-124	153.73	5,319	316,670.00	60
66532	SP	066-599-023	173.82	6,016	484,194.00	80
68531	SAP	068-599-070	152.50	5,363	313,575.00	58
73562	SAP	073-630-013	155.34	5,988	304,840.00	51
76528	SP	076-636-003	152.58	5,967	321,077.00	54
01012		TH	288.58	11,303	$831,172.76	$74
14813		TH	184.00	9,783	737,251.29	75
14814		TH	184.00	11,807	903,626.94	77
24007		TH	203.33	16,013	1,414,467.87	88
27121		TH	219.08	26,727	1,569,460.97	59
27168		TH	199.48	22,970	1,430,860.25	62
27254		TH	177.59	25,467	1,612,650.32	63
27258		TH	187.75	27,534	1,963,087.16	71
27259		TH	186.18	6,361	536,364.76	84
27265		TH	192.25	5,231	602,233.20	115
27R02		TH	257.79	26,684	2,667,831.59	100
27V28		TH	415.42	11,108	604,902.39	54
34012		TH	277.18	13,475	833,643.96	62
69120		TH	238.92	10,792	688,849.76	64

State Aid Projects	**46,907**	**$3,714,266.40**	**$79**
Trunk Hightway Projects	**225,255**	**16,396,403.22**	**73**
TOTALS	***272,162***	***$20,110,669.62***	***$74***

BRIDGES LET IN CALENDAR YEAR 2000

BRIDGE LENGTH 500 FEET AND OVER

NEW BRIDGE NUMBER	PROJECT NUMBER	LENGTH	DECK AREA	BRIDGE COST	COST PER SQ. FT.

TOTALS	***0***	***$0.00***	***$0***

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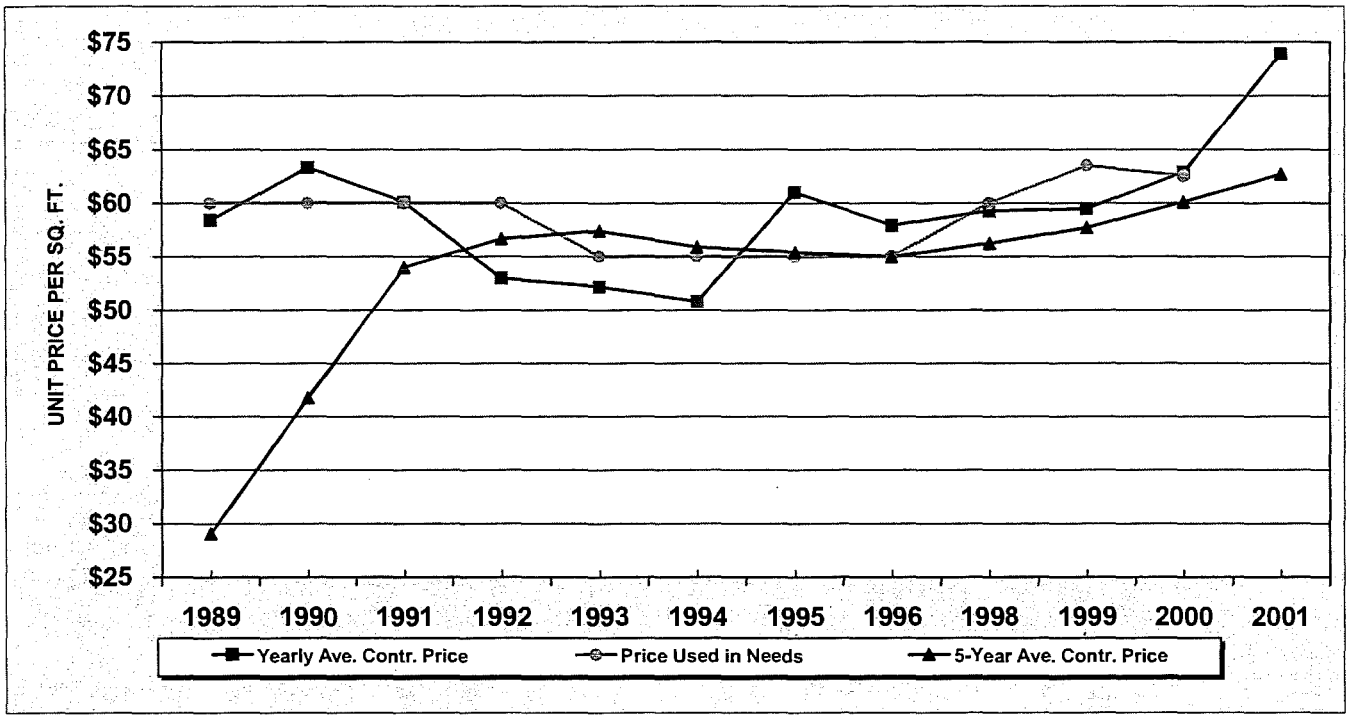
BRIDGE COST

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
1989	11	116,378	$6,796,566	$58.40	$60.00	$29.07
1990	25	418,376	26,483,631	63.30	60.00	41.73
1991	27	368,709	22,167,571	60.12	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	57.39
1994	29	307,611	15,619,506	50.78	55.00	55.86
1995	28	381,968	23,310,410	61.03	55.00	55.41
1996	27	385,230	22,302,967	57.90	55.00	54.96
1998	30	483,315	28,642,031	59.26	60.00	56.22
1999	29	455,964	27,104,753	59.44	63.50	57.68
2000	22	275,074	17,296,406	62.88	62.50	60.10
2001	21	272,162	20,110,670	73.89		62.67

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2001 NEEDS STUDY IS $68.00 PER SQ. FT.

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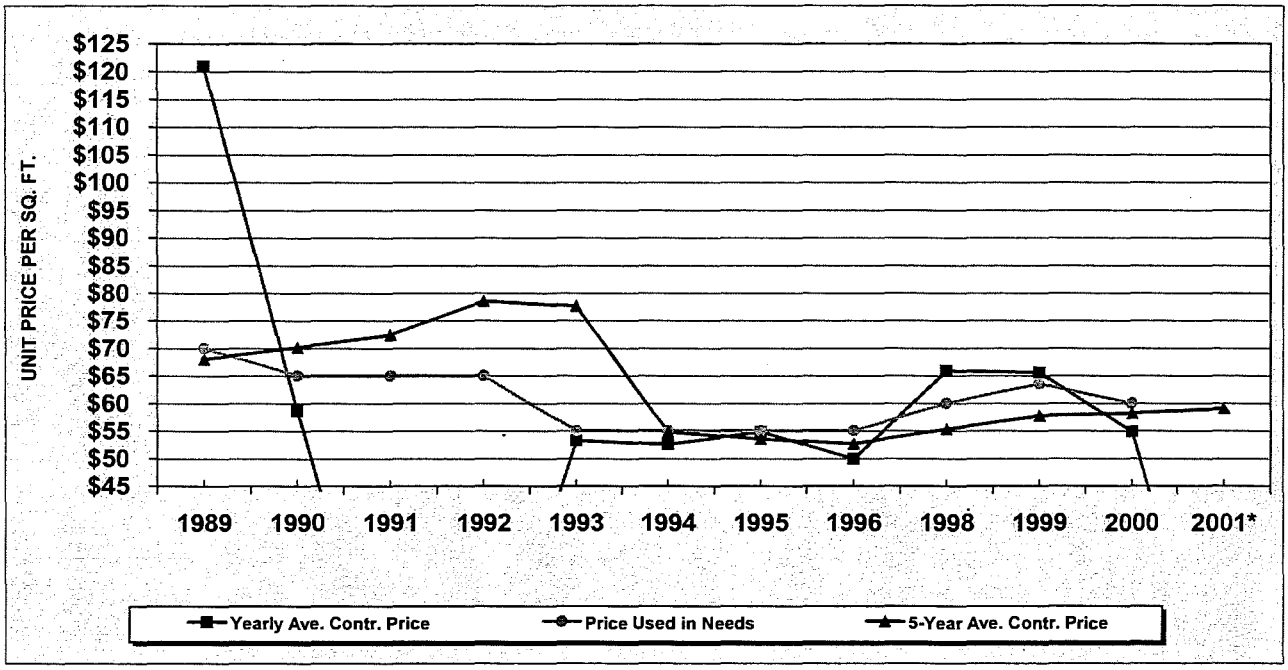
BRIDGE COST

500 & OVER



NEEDS YEAR	NUMBER OF PROJECTS	DECK AREA	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5-YEAR AVERAGE CONTRACT PRICE
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	72.44
1992	0	0	0	0	65.00	78.55
1993	6	245,572	13,068,106	53.21	55.00	77.61
1994	3	75,425	3,959,504	52.50	55.00	54.79
1995	2	174,991	9,595,341	54.83	55.00	53.51
1996	4	157,751	7,875,932	49.93	55.00	52.62
1998	3	182,129	12,002,782	65.90	60.00	55.27
1999	6	201,931	13,228,740	65.51	63.50	57.73
2000	2	162,652	8,922,542	54.86	60.00	58.21
2001*	0	0	0	0.00		59.05

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2001 NEEDS STUDY IS $68.00 Per Sq. Ft.

*There were no bridges over 500 feet built in 2000 so a 4-year average was used instead.

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RAILROAD BRIDGES OVER HIGHWAYS

Needs Year	Number of Projects	Number of Tracks	Bridge Length	Bridge Cost per Lin. Ft. (Actual)	Cost per Lin. Ft. of 1st Track (Unit Price Study)	Cost per Lin. Ft. of Additional Tracks (Unit Price Study)
1986	0	0			$2,250	$1,750
1987	0	0			2,250	1,750
1988	1	3	103.71	$13,988	2,250	1,750
1989	2	1	161.51	8,499	2,250	1,750
		1	317.19	5,423	2,250	1,750
1990	1	2	433.38	8,536	4,000	3,000
1991	0	0			4,000	3,000
1992	1	1	114.19	7,619	4,000	3,000
1993	1	1	181.83	7,307	5,000	4,000
1994	0	0			5,000	4,000
1995	0	0			5,000	4,000
1996	1	1	80.83	12,966	5,000	4,000
1998	1	1	261.02	8,698	8,000	6,500
1999	1	1	150.3	8,139	8,200	6,700
2000	2	1	108.58	12,112		
		1	130.08	10,569	9,000	7,500
2001						

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2001 NEEDS STUDY IS PER LINEAL FOOT FOR THE FIRST TRACK **$9,000**

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2001 NEEDS STUDY IS PER LIN. FT. FOR ADDITIONAL TRACKS **$7,500**

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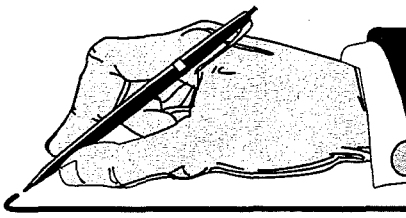
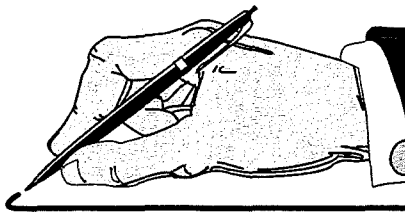


NOTES and COMMENTS

OTHER

TOPICS



NOTES and COMMENTS

NEEDS STUDY QUESTIONS

Traffic Signals

The June, 1998 Screening Board passed the following motion:
Dan Sarf moved to revise the unit price for traffic signals from $100,000 to $99,990 due to mainframe computer limitations
Because the new needs program is being written this year, we no longer have those computer limitations. The current traffic signal costs are:

Traffic Signal Needs Based On Projected Traffic (every segment)			
Projected Traffic	Percentage X	Unit Price =	Needs Per Mile
0 - 4,999	25%	$99,990	$24,998 per Mile
5,000 - 9,999	50%	$99,990	$49,995 per Mile
10,000 and Over	100%	$99,990	$99,990 per Mile

The Screening Board is reviewing the Traffic Signal costs this year and may make a revision in the way they are computed. If the Screening Board takes no action on traffic signal costs, should the Unit Cost be moved back to $100,000? The new chart would look like:

Traffic Signal Needs Based On Projected Traffic (every segment)			
Projected Traffic	Percentage X	Unit Price =	Needs Per Mile
0 - 4,999	25%	$100,000	$25,000 per Mile
5,000 - 9,999	50%	$100,000	$50,000 per Mile
10,000 and Over	100%	$100,000	$100,000 per Mile

Engineering

The following is taken from the Fall 2000 Screening Board minutes:

At its spring 1999 meeting, the Screening Board increased the allowable engineering cost from 18% to 20%. Marshall Johnston requested that the 20% be reduced to 18% in computing the year 2000 allotment. The accuracy of the new database that is being implemented for the year 2000 would be impossible to verify against the old 1999 database if the engineering cost percentages were to increase at this time. The new computer mainframe should be available for use in determining the 2001 allocation. He recommended the engineering cost be increased from 18% to 20% at that time.
Keith Nelson moved to approve the request to change back the engineering unit price to 18%. The motion was seconded by Lee Gustafson. Motion carried.

Again, because the new needs program is being written this year, we no longer have those computer limitations. Should the engineering unit cost be increased to 20%?

STREET LIGHTING COSTS

Report for the Needs Study Subcommittee
Spring 2001 meeting
4/19/01

At the Spring 2000 Screening Board meeting the issue of the unit price for Street Lighting was referred back to the Needs Study Subcommittee by the following motion:

Moved by Mr. Warn and seconded by Mr. Schoonhoven to send Street Lighting costs back to the needs study subcommittee. Motion carried without opposition.

Street lighting needs are received by every segment on the system. Whether the segment is adequate or deficient, urban or rural, existing or nonexisting, it receives street lighting needs.

From 1992 until 1998, the Needs cost for street lighting was $20,000 per mile. In 1998, the minutes from the NSS meeting say that the NSS 'discussed the need to have additional data analysis for lighting costs and stay at present cost until next year'.

At it's spring 1999 meeting, the NSS recommended a price increase from $20,000 to $35,000 per mile. This was based on an estimate of 14 poles per mile with a cost of $2500 per pole.

The Screening Board approved the increase to $35,000 per mile and sent the issue back to the NSS for further review.

At its spring 2000 meeting, the NSS recommended a unit price increase from $35,000 to $78,000 per mile. This cost was based on 26 poles per mile at $3,000 per pole.

By a 7 to 4 vote, the Screening Board approved a unit price for street lighting of $50,000 per mile and referred the issue back to the NSS.

Attached is the information gathered by the Needs Unit over the past two years. Please review it and discuss the suitability of the $50,000 per mile unit cost.

An option to consider is an 'After the Fact' positive needs adjustment for street lighting costs. Using this option, only the city that spends the money gets the adjustment. When the city has submitted the documentation of MSAS or local funds spent on a street lighting contract, the eligible portion of the cost shall be added to the city's needs for 15 years. Example: If a city submits a $1000 project, $1000 will be added to the city's needs for 15 years. This is a total of $15,000 in adjustments. At this years needs value, the city would receive approximately $370 in real dollars over a 15 year period, or $18.00 per year.

UNIT COST FOR STREET LIGHTING

Report for the Needs Study Subcommittee
Spring 2000 meeting
4/13/00

♦

HISTORY

The following paragraph is from the minutes of the April 12, 1999 meeting of the Needs Study Subcommittee:

> The Screening Committee directed the Needs Study Subcommittee to review the lighting costs. After much discussion the Subcommittee is recommending a price increase from $20,000 a mile to $35,000 per mile. An estimate of 14 poles with a cost of $2500 per pole was used to determine the proposed cost.

The following is from the minutes of the June 3, 1999 Screening Board meeting:

> Ed Warn moved to send the street lighting unit price analysis back to the Needs Subcommittee to look further at AASHTO standards, other standards if applicable, to recommend a per-mile street lighting cost and to consider the potential use of after-the-fact needs for street lighting. Ramankutty Kannankutty seconded the motion. Discussion regarding the motion included the following:
>
> - Keep the street lighting cost unit price calculations as simple as possible.
> - Determine what a realistic amount would be for cost of street lighting.
> - Establish a standard roadway street lighting as the basis for the unit prices.
> - Establish a minimal lighting standard and make it a requirement for actual construction requirements.
>
> Upon vote, the motion carried. Mark Winson and David Salo voted against the motion.

Options & Questions

The Mn/DOT State Lighting Engineer made the following recommendations, which are based upon the AASHTO street lighting book entitled 'An Informational Guide for Roadway Lighting':

Local Commercial would have about 26 lights per mile. This is an average of 0.6 to 0.8 footcandles and is based on 200 foot staggered spacing. It does include intersections, but signalized intersections would reduce the number of light poles.

Local Residential would have intersection and midblock lighting. Assuming 10 blocks per mile, that would be 19 light figures. AASHTO recommends an average

or 0.3 footcandles, but this might or might not be achieved depending on the length of the blocks.

Mn/DOT estimates that a 40-foot pole with a standard cobra head costs $4000 to install. This includes foundation, cables, conduit, etc.

So, for estimating and planning purposes, the Mn/DOT State Lighting Engineer recommends using $104,000 per mile for Local Commercial and $76,000 per mile for Local Residential lighting costs

Otter Tail Power, Northern States Power, and the FHWA were also contacted about costs per mile for street lighting. The only response was from NSP, who reviewed the numbers from the State Lighting Engineer, and agreed that they were realistic figures.

Currently, all segments receive street lighting needs. Rural and urban, adequate and deficient.
Should all deficient and adequate segments receive lighting needs?
Should both urban and rural segments receive lighting needs?

Should lighting needs be based on projected traffic like traffic signal needs are? Example:

Projected Traffic	Percentage X	Unit Price =	Needs per Mile
0 – 4,999	0.25	$35,000	$8,750
5,000 – 9,999	0.50	$35,000	$17,500
10,000 & over	1.00	$35,000	$35,000

Should there be an after the fact positive needs adjustment for street lighting based on the state aid portion of the actual construction cost? The city would have to submit documentation of any street lighting adjustment requested.

Taken from the Spring 1999 Booklet

STREET LIGHTING COSTS

The MSA needs include a similar costs for all segments in the needs. Rural segments are treated the same as urban. The present needs cost for lighting is $20,000 for every mile, includes both adequate and deficient segments. In the past, State Aid eligibility was limited to lighting hazardous intersections. The new rules allow costs within a municipality.

ALBERT LEA

Has one street lighting project scheduled for 1999. The consultant estimated the cost at $260,000 per mile. This is for 40 ft. high poles for a widening project on a stretch of road alongside a new high school.
Street lighting along their projects are usually on wooden poles installed by the local power company, and the city is charged a monthly fee per light fixture.
The city is planning some ornamental pedestrian lighting at a cost of approximately $25.00 per l.f. for buried electrical, ornamental poles, fixtures, foundations, etc.

CROOKSTON

RECONSTRUCTION OF TH 2 IN 1998
Decorative, 14' poles with 18" diameter spherical globe, 150W HPS

Project Length	Roadway Width	Number of Poles	Cost per Fixture w/conduit & wire	Project Cost	Cost per Mile
2,280'	58'	42	$3,879.29	$162,930	**$377,311.58**

NEW ULM

	Project Length	Roadway Width	Low Standard Lightpoles	High Standard Lightpoles	Decorative Lightpoles w/fixtures	Banner Poles	Project Cost	Cost per Mile
1995	4160'	40'	40				$65,841.00	**$83,567.42**
1996, 1997	2,640'	56'			142	67		
	880'	84'						
Total above 2	3,520'						$469,716.46	**$704,574.69**
1997	2,935'	40'	14	11			$49,251.06	**$88,601.57**
1997	1,050'	28'		7			$14,860.00	**$74,724.57**
1998	1,460'	40'	14				$32,532.96	**$117,653.44**

The average cost for street lighting in New Ulm (not including the 1996,1997 project which was the downtown business district) for the last 4 projects is $91,136.75 per mile.

SAINT PAUL

1998 costs on MSAS projects

Street Name	Project Length	Roadway Width	Project Cost	Cost per Mile
Selby	2,901'	46'	$98,253	**$178,827**
Cretin	2,239'	40'	$87,336	**$205,955**
Minnehaha	3,754'	40', 44'	$131,004	**$184,257**
Burr	993'	40', 42'	$36,390	**$193,494**

The average cost for street lighting in Saint Paul on the MSAS system in 1998 was $190,633.25

Buffalo

1998 Bid

3rd Ave.	7250 '	32'	62		Decorative	$130,000	**$94,675**

April 17, 2000

To the members of the 2000 Municipal Screening Board

Re: Minutes of the Needs Study Subcommittee

The Needs Study Subcommittee met at the Mn/DOT district office in St. Cloud on Thursday, April 13. Members of the subcommittee present were Tom Drake, Acting Chairman in the absence of Jack Bittle who is recuperating from surgery, Terry Wotzka, and Dave Kildahl. Also present were Marshall Johnston and Mark Channer from the Division of State Aid. The meeting convened at 1:00 p. m.

The subcommittee first reviewed the unit price study. The subcommittee's recommended unit prices to be used in the 2000 needs computation are shown on the attached summary sheet.

Regarding Street Lighting, the subcommittee discussed this issue at length, and recognizes that our current unit price of $35,000 per mile is low. We reviewed information Marshall Johnston had put together in his research with the FHWA. It was therefore decided that all streets should receive needs of **$78,000 per mile**, based on a street light every 200 feet (26 per mile) for commercial streets as recommended by the FHWA at a unit cost of $3,000 per light. A typical residential street should be lighted at the intersection and midblock. There is an average of 13 blocks per mile, therefore 26 lights are also needed for residential streets. The price of $3,000 per light fixture is lower than that recommended by the State Lighting Engineer, but it is a 20 per cent increase in the cost used in 1999.

Regarding bridge reconditioning needs, the subcommittee did not have time to adequately discuss this issue. We ask that the state aid staff provide more background information before the subcommittee can make a recommendation. The first thing to discuss is what is the definition of bridge reconditioning? Therefore, no action was taken by the subcommittee.

Regarding railroad grade crossing needs, the Mn/DOT Railroad Office has provided information only for concrete crossing surfaces, not for rubberized crossing surfaces. Therefore, the subcommittee recommends that the Screening Board approve the price as recommended of $900.00 per linear foot of track.

Resurfacing and Reconditioning Needs Adjustment

The subcommittee believes that reconditioning and special resurfacing projects as currently defined serve the same purpose to extend the life of the street pavement, and should be treated the same way for needs purposes. The resurfacing adjustment was recently eliminated by the screening board because of the unfairness of having an adjustment if the resurfacing took place

AASHTO GUIDELINES
SUGGESTED LIGHTING DESIGN VALUES

AVERAGE MAINTAINED HORIZONTAL ILLUMINATION FOR ROADWAYS OTHER THAN FREEWAYS

Average Illuminance
Pavement Classification
R1=cement/concrete R3=asphalt/rough texture

Roadway and Walkway Classification		R1 Foot-candles	R1 Lux	R2 Foot-candles	R2 Lux	Uniformity avg/min
Expressway	Commercial	0.9	10	1.3	14	3:1
	Intermediate	0.7	8	1.1	12	
	Residential	0.6	6	0.8	9	
Major	Commercial	1.1	12	1.6	17	3:1
	Intermediate	0.8	9	1.2	13	
	Residential	0.6	6	0.8	9	
Collector	Commerical	0.7	8	1.1	12	4:1
	Intermediate	0.6	6	0.8	9	
	Residential	0.4	4	0.6	6	
Local	Commercial	0.6	6	0.8	9	6:1
	Intermediate	0.5	5	0.7	7	
	Residential	0.3	3	0.4	4	
Alleys	Commercial	0.4	4	0.6	6	6:1
	Intermediate	0.3	3	0.4	4	
	Residential	0.2	2	0.3	3	
Sidewalks	Commercial	0.9	10	1.3	14	3:1
	Intermediate	0.6	6	0.8	9	4:1
	Residential	0.3	3	0.4	4	6:1
Pedestrian Ways and Bicycle Lanes		1.4	15	2.0	22	3:1

* These are minimum levels when the output of the lamp and luminaire is diminished by the maintenance factors.
Maintenance Factors: 20% loss due to dirt etc. accumulation
10% loss due to lamp deterioration
This results in a .72 dirt/deterioration factor which must be applied in design.

Post-it® Fax Note 7671 | Date 3/2/99 | # of pages 3
To Marshall Johnston | From Sue Lodahl
Co./Dept. | Co.
Phone # | Phone #
Fax # 292-2727 | Fax # 57

AASHTO

CLASSIFICATION OF ROADWAYS, WALKWAYS, AND AREAS

ROADWAY AND WALKWAY CLASSIFICATIONS

(a) Freeway. A divided major highway with full control of access and with no crossings at grade.

(b) Expressway. A divided major arterial highway for through traffic with full or partial control of access and generally with interchanges at major crossroads. Expressways for non-commercial traffic within parks and parklike areas are generally known as parkways.

(c) Major. A part of the roadway system that serves as the principal network for through traffic flow. The routes connect areas of principal traffic generation and important rural highways entering the city.

(d) Collector. The distributor and collector roadways serving traffic between major and local roadways. These are roadways used mainly for traffic movements within residential, commercial and industrial areas.

(e) Local. Roadways used primarily for direct access to residential, commercial, industrial, or other abutting property. They do not include roadways carrying through traffic. Long local roadways will generally be divided into short sections by collector roadway systems.

(f) Alleys. A narrow public way within a block, generally used for vehicular access to the rear of abutting properties.

(g) Sidewalks. Paved or otherwise improved areas for pedestrian use, located within public street right of way which also contain roadways for vehicular traffic.

(h) Pedestrian Way. Public sidewalks for pedestrian traffic generally not within rights of way for vehicular traffic roadways. Included are skywalks (pedestrian overpasses), subwalks (pedestrian tunnels), walkways giving access to park or block interiors and crossings near centers of long blocks.

(i) Bicycle Lanes. Any facility that explicitly provides for bicycle travel.

AASHTO

AREA CLASSIFICATIONS

(a) Commercial. That portion of a municipality in a business development where ordinarily there are large numbers of pedestrians and a heavy demand for parking space during periods of peak traffic or a sustained high pedestrian volume and a continuously heavy demand for off-street parking space during business hours. This definition applies to densely developed business areas outside of, as well as those that are within, the central part of a municipality.

(b) Intermediate. That portion of a municipality which is outside of a downtown area but generally within the zone of influence of a business or industrial development, often characterized by a moderately heavy nighttime pedestrian traffic and a somewhat lower parking turnover than is found in a commercial area. This definition includes densely developed apartment areas, hospitals, public libraries, and neighborhood recreational centers.

(c) Residential. A residential development, or a mixture of residential and commercial establishments, characterized by few pedestrians and a low parking demand or turnover at night. This definition includes areas with single family homes, townhouses, and/or small apartments. Regional parks, cemeteries, and vacant lands are also included.

COMPARISON OF AFTER THE FACT LIGHTING ADJUSTMENT AND $78,000 PER MILE

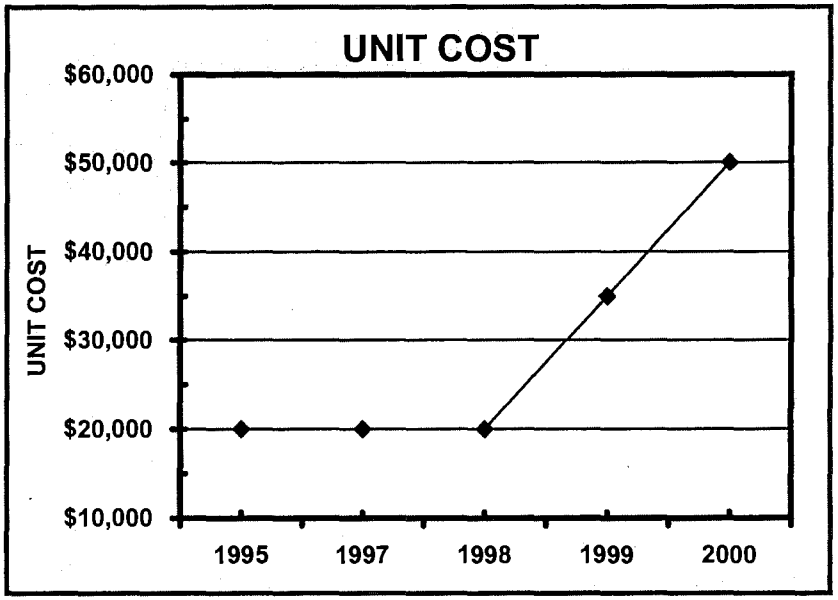
1998 and 1999 Projects

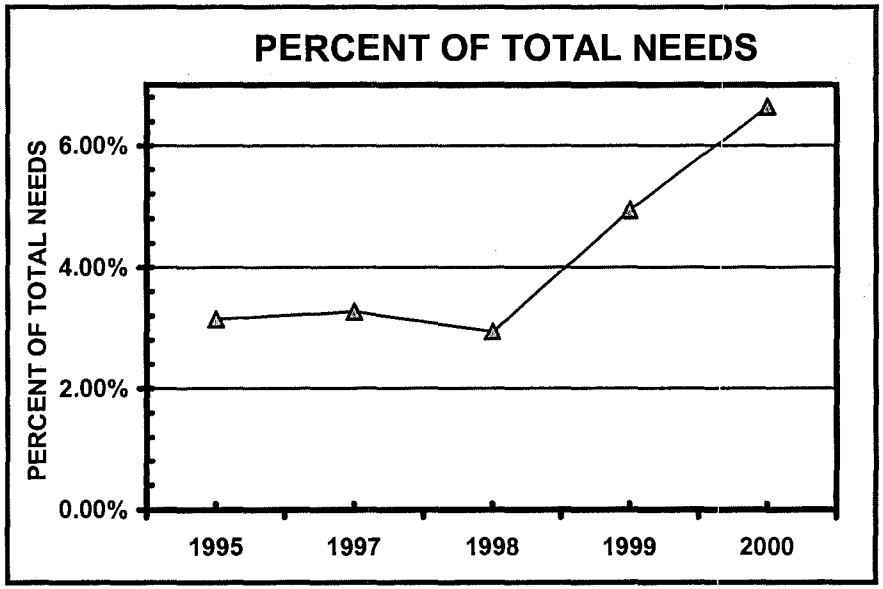
CITY NAME	PROJECT NUMBER	PROJECT LENGTH	YEAR OF LETTING	PROJECT AMOUNT	AFTER THE FACT ADJUSTMENT	NEEDS AT $78,000 PER MILE	COMMENTS
Anoka	103-122-009		1998	$33,703	$33,703		
	103-139-001		1998	385,563	38,324		From Abstract of Bids
	103-140-002		1998	269,719	31,345		From Abstract of Bids
Anoka Total		**1.19**			**103,372**	**92,820**	
Austin	104-135-005	0.48	1998	846,873	51,532	37,440	From Abstract of Bids
Crookston	115-117-008		1999	44,465			Includes Lighting
Duluth	118-107-008		1999	154,681			Includes Lighting
Hastings	130-137-001	1.12	1999	545,000	1,850	87,360	From Abstract of Bids
Minneapolis	141-425-001		1999	209,351	151,806		From Abstract of Bids
	141-435-001		1999	1,327,593	151,806		From Abstract of Bids
Minneapolis Total		1.60			**303,611**	**124,800**	
Moorhead	144-136-004	0.62	1999	103,835	103,835	48,360	
Mound	145-108-003	0.15	1999	175,467	1,000	11,700	From Abstract of Bids
New Ulm	148-501-001		1998	1,241,822			Includes Lighting
Rochester	159-109-020	0.29	1999	1,024,643	63,480	22,620	From Abstract of Bids
St. Paul	164-114-001		1998	32,235	32,235		
	164-124-015		1998	93,914	93,914		
	164-129-011		1998	209,165	17,914		From Abstract of Bids
	164-156-011		1999	394,480	4,607		From Abstract of Bids
	164-164-015		1998	141,006	141,006		
	164-191-007		1998	104,115	104,115		
	164-232-019		1999	421,221	5,410		From Abstract of Bids
	164-253-003		1998	58,802	8,053		From Abstract of Bids
Saint Paul Total		2.97			**407,254**	**231,660**	
St. Peter	165-106-004		1998	174,147			Includes Lighting
Chanhassen	194-116-002	0.35	1998	442,997	28,965	27,300	From Abstract of Bids
Elk River	204-131-001		1998	139,584			Includes Lighting
SP's							
Bloomington	SP 107-399-017	0.70	1999	2,031,098	463,345	54,600	From Abstract of Bids
Buffalo	SP 213-103-001	1.28	1998	1,723,507	68,000	99,840	From Abstract of Bids
TOTAL				$12,328,984	$1,596,245	$838,500	
Included:		2545.511 Lighting Unit 2545.515 Light Base 2545.523 40mm Non Metalic Conduit 2545.531 Underground wire 1C/#6 2545.511 Junction Box				2545.601 Temp. Lighting 2545.602 Install Salvaged Light Standard 2545.600 Light Base Design E 2545.603 Wiring	
Should Temp. Lighting be included in street lighting costs???							

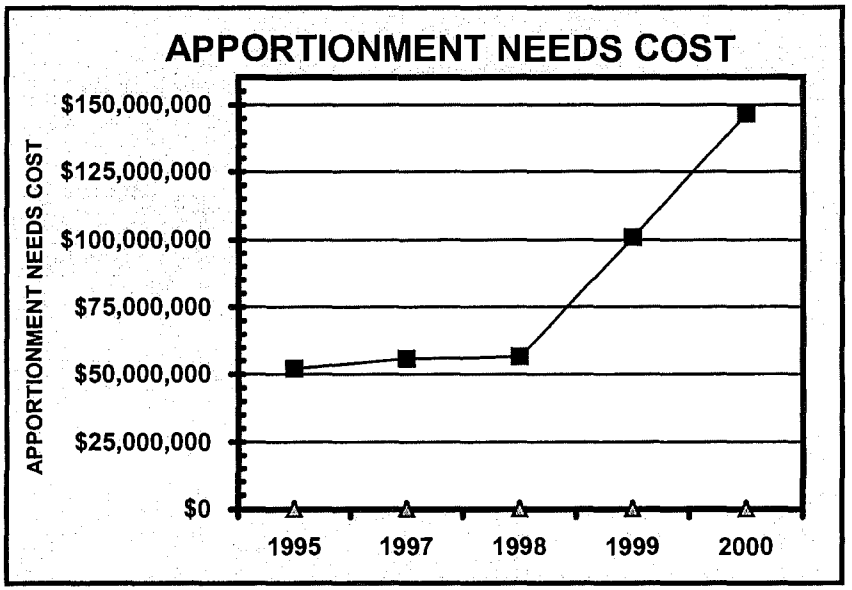
"Includes Lighting" means the routing sheet specifies there is lighting, but there is not abstract to verify the amount.

STREET LIGHTING

NEEDS YEAR	PERCENT OF TOTAL NEEDS	UNIT COST	APPORT. NEEDS COST
1995	3.15%	$20,000	$52,068,200
1997	3.27%	20,000	55,791,200
1998	2.94%	20,000	56,600,000
1999	4.94%	35,000	100,897,650
2000	6.64%	50,000	146,790,500







BRIDGE COSTS

At the June, 2000 Screening Board meeting, a motion was passed asking the Needs Study subcommittee to review the bridge unit prices for the possibility of combining the three different categories.
The attached chart shows the average bridge construction costs and the bridge unit prices since 1980.
Some observations that can be made are:

Average Construction Cost

The average difference between the high and low construction cost is $13.25.

Discarding the largest difference ($65.92 in 1998) and the smallest difference ($0.87 in 1991), the average difference in construction cost of the other 19 years is $10.61

There were no bridges in the 500 and over category in three separate years.

In this 21 year time frame there were 734 bridges constructed in the 0-149 category, 398 in the 150-499 category, and 63 in the 500 and over category.

The difference in the Average Construction Cost was quite high from 1980 to 1988.

The average Construction cost of 500 feet and over was the highest in 9 years.
The average Construction cost of 500 feet and over was the lowest in 3 years

The average construction cost of 150-149 was the highest in 3 years
The average construction cost of 150-149 was the lowest in 4 years

The average construction cost of 0-149 was the highest in 7 years.
The average construction cost of 0-149 was the lowest in 10 years years.

Unit Cost

The seven years from 1993 to 1999, the Unit Price for the 3 categories was the same.
All the other years, except 2000, the Unit Cost for 0-149 category was lowest.

Miscellaneous

In the 2000 Needs Study there were 476 bridges drawing a total of $123,859,056 in Needs.
Of these, 426 are in the 0-149 category, 43 are in the 150-499 category, and 7 are in the 500 and over category.

21 Years of Bridge Construction & Unit Costs

per square foot

Average Construction Cost includes Mn/DOT and State Aid bridges

Needs Year	Bridges 0 - 149				Bridges 150 - 499				Bridges 500 & over				Diff.Between High & Low Constr.Cost
	Number of Projects	Unit Cost	Average Construction Cost	*	Number of Projects	Unit Cost	Average Construction Cost	*	Number of Projects	Unit Cost	Average Construction Cost	*	
1980	44	$41.00	$39.00	3	14	$47.00	$43.00	2	5	$56.00	$62.00	1	$23.00
1981	64	39.00	36.00	3	15	43.00	43.00	2	2	56.00	62.00	1	26.00
1982	32	36.00	36.00	3	11	43.00	41.00	2	1	62.00	62.00	1	26.00
1983	27	36.00	38.00	3	10	43.00	44.00	2	2	62.00	50.00	1	12.00
1984	31	38.00	45.00	3	9	44.00	51.00	1	1	50.00	48.00	2	6.00
1985	29	45.00	51.00	3	19	51.00	46.00	2	3	50.00	61.00	1	16.00
1986	41	49.00	36.40	3	6	51.00	39.66	2	1	55.00	54.12	1	17.72
1987	22	37.00	41.50	3	10	40.00	47.30	2	1	54.00	56.04	1	14.54
1988	11	41.50	55.02	3	11	47.00	58.40	2	8	56.00	120.94	1	65.92
1989	42	55.00	65.27	1	25	60.00	63.30	2	13	70.00	58.67	3	1.97
1990	37	55.00	54.09	2	27	60.00	61.33	1	0	65.00	0.00	-	7.24
1991	39	55.00	53.83	1	24	60.00	52.96	2	0	65.00	0.00	-	0.87
1992	38	55.00	56.25	1	31	60.00	52.15	3	6	65.00	53.21	2	4.10
1993	49	55.00	54.55	2	29	55.00	50.78	3	3	55.00	55.53	1	4.21
1994	32	55.00	53.13	3	28	55.00	61.03	1	2	55.00	54.83	2	8.65
1995	35	55.00	58.51	1	27	55.00	57.90	2	4	55.00	49.93	3	8.58
1996	52	55.00			30	55.00				55.00			
1997		55.00	71.33	1		55.00	59.26	3	3	55.00	65.90	2	12.07
1998	53	60.00	68.16	1	29	60.00	59.44	3	6	60.00	65.51	2	8.72
1999	54	63.50	68.00	1	22	63.50	63.00	2	2	63.50	54.86	3	5.00
2000	62	65.00	73.00	2	21	62.50	74.00	1	0	60.00	0.00	-	1.00

*** column indicates ranking of Construction Cost amounts for that year (1 meaning the highest)**
A Unit Price Study was not conducted in 1997
Unit Cost is based on the previous years Average Construction Cost

msas/excel/misc/unit cost & ave. constr. chart 1980-2000.xls

TRAFFIC SIGNALS STUDY

Report for the Needs Study Subcommittee
Spring 2001 meeting
4/19/01

At the Spring 2000 Screening Board meeting, the following motion was passed:

> Moved by Mr. Warn and seconded by Mr. Kannankutty to have the Needs Study subcommittee review the costs of Traffic Signals and means to increase the costs beyond the current $99,990 per mile. After a friendly amendment to include combining bridge unit prices the motion carried without opposition

ORIGINALS

Every segment on tl .c signal. Whether the segment is adequate or deficie ionexisting, it receives traffic signal needs.

Traffic signal need: l on the following formula:

Projected Traffic	Percentage X	Unit Price =	Needs per Mile
0 – 4,999	0.25	$99,999	$24,998
5,000 – 9,999	0.50	$99,999	$49,998
10,000 & over	1.00	$99,999	$99,990

The $99,990 per signal will be increased to $100,000 this year, per screening board resolution.

Observations from the attached chart:

1) There were forty-five projects that were identified as having money spent on traffic signals. Twelve (27% of the total projects) of the projects could not be used in this study for a variety of reasons, from costs in the abstract of bids not being split out to not having any abstract of bids to work with.

2) Brooklyn Park, Coon Rapids, and Richfield had some projects that were not included because of the above reasons, so their comparison is not accurate.

3) For this year, these cities received $176,582 more in needs than they spent on traffic signals.

4) 8 of the 23 projects included in the study were off system projects.

TRAFFIC SIGNALS STUDY

PROJECT TYPE NUMBER	OFF SYSTEM?	PROJECT *SIGNAL* COST	MSAS PORTION (%) 1st	2nd	MSAS CONTRACT AMOUNT	COMMENTS	2000 ANNUAL SIGNALS NEEDS	DIFFERENCE BETWEEN CONTRACT AMOUNT AND NEEDS	CITY
SAP 101-030-003	$145,000	$90,000.00	50%	38%	**$106,250.00**	Tied to 24-622-07, 2 intersections	$34,271.95	$71,978.05	Albert Lea
SP 107-030-002				?		Tied to: 27-030-006 **DO NOT USE! Costs Not Split Out.**			
SP 107-030-003				?		No Routing Sheet - See 120-030-003 **DO NOT USE! Costs Not Split Out.**			
SP 110-020-017		16,496.00		100%	**16,496.00**	From Payment Authorization. Tied to: 27-614-09	141,536.15	(125,040.15)	**Brooklyn Park**
SP 110-030-003				?		Tied to: 27-030-04, 107-030-004 **DO NOT USE! Costs Not Split Out.**			
SAP 114-020-019				?		**CANNOT FIND FOLDER**			
SP 114-020-022			33%	50%	0.00	No Routing Sheet			
SP 114-020-021		5,000.00		100%	5,000.00	Tied to: 02-601-39, 02-678-14 **EVP ONLY!**			
SAP 114-120-006	**NO**	127,080.00		50%	63,540.00	Tied to: 02-611-27,114-120-014. Eng Est has the split @ 75%-MSAS, 25%-CSAH!			
SUBTOTAL					**68,540.00**		115,051.50	(46,511.50)	Coon Rapids
SAP 118-147-012	**NO**	106,900.00		75%	80,175.00	Tied to: 118-166-002			
SAP 118-166-002	**NO**	118,900.00		25%	29,725.00	Tied to: 118-147-012			
SAP 118-196-001	**NO**	156,000.00		50%	78,000.00	Tied to: 69-606-014			
SUBTOTAL		381,800.00			187,900.00		250,539.15	(62,639.15)	Duluth
SP 120-030-002				?		Tied to: 27-030-04, 107-030-003			
SP 120-030-003				?		No Routing Sheet			
SAP 124-020-005			50%	25%		**CANNOT FIND FOLDER**			
SAP 131-216-003	**NO**			?		Can't Use - No Bids or Cost Splits			
SAP 132-341-008	**NO**	80,650.00		100%	**80,650.00**		29,697.25	50,952.75	Hopkins
SP 141-020-088				?		No Routing Sheet			
SAP 141-020-089	259,796.00	54,788.00	50%	33%	147,978.04	Tied to: 27-605-20			
SP 141-071-004		90,456.00		100%	90,456.00	No Routing Sheet			
SAP 141-425-002	**NO**			?		**DO NOT USE - No Signals**			
SAP 141-425-004	**NO**	564,320.15		100%	564,320.15	--			
SUBTOTAL					**802,754.19**		639,151.90	163,602.29	Minneapolis
SAP 157-020-017		126,100.00		50%	63,050.00	Tied to: 27-652-34, 157-106-003			
SP 157-030-002				?		Tied to: 27-030-04, 107-030-003			
SP 157-030-003				?		Tied to: 27-030-05 **DO NOT USE! Costs Not Split Out.**			
SP 157-030-004				?		No Routing Sheet		0.00	Forest Lake
SAP 157-106-003	**NO**	126,100.00		25%	31,525.00	Tied to: 157-020-017, 27-652-34			
SUBTOTAL					**94,575.00**		61,194.30	33,380.70	Richfield
SAP 159-106-015	**NO**	103,440.00		100%	103,440.00				
SAP 159-126-011	**NO**	159,800.00		50%	79,900.00				
SUBTOTAL					**183,340.00**		196,493.55	(13,153.55)	Rochester
SAP 161-104-006	**NO**	21,175.00		50%	**10,587.50**		13,298.60	(2,711.10)	Saint Anthony
SP 162-101-004	**NO**	129,300.00	50%	100%	**129,300.00**	No Routing Sheet	176,858.35	(47,558.35)	Saint Cloud
SP 163-030-002				?		No Routing Sheet		0.00	
SP 163-030-003				?		Tied to: 27-030-04, 107-030-003		0.00	
SP 164-158-019	**NO**	92,700.00		100%	**92,700.00**		464,767.25	(372,067.25)	Saint Paul
SAP 175-124-010	**NO**			25%		Tied to: 34-615-06			
SAP 180-110-010	**NO**	28,500.00		50%	**14,250.00**	Tied to: 180-108-001, Loop Detectors	73,180.60	(58,930.60)	Cottage Grove

TYPE	PROJECT NUMBER	OFF SYSTEM?	PROJECT *SIGNAL* COST	MSAS PORTION (%) 1st	MSAS PORTION (%) 2nd	MSAS CONTRACT AMOUNT	COMMENTS	2000 ANNUAL SIGNALS NEEDS	DIFFERENCE BETWEEN CONTRACT AMOUNT AND NEEDS	CITY
	SP 181-020-022	**280,000**	140,000.00	50%	75%	**245,000.00**	Tied to: SP27-601-27	131,111.85	113,888.15	Eden Prairie
	SAP 189-020-010				?					
	SP 194-106-002	**NO**		50%	25%		Tied to: 194-113-01, 194-113-01 **DO NOT USE! Costs Not Split Out.**			
	SP 194-115-003	**NO**			?		Tied to: 194-113-01, 194-106-02 **DO NOT USE! Costs Not Split Out.**			
	SP 199-104-005	**NO**			50%	0.00	No Routing Sheet			
	SAP 200-020-004				?		Tied to: 66-621-006, 200-101-009			
	SAP 200-101-009	**NO**			0%		Tied to: 62-621-006, 200-101-009 **DO NOT USE** - Signals are all under County			
	SAP 214-102-005	**NO**	54,925.00		75%	41,193.75				
	SAP 214-104-001	**NO**	79,493.00		100%	79,493.00	4th Street and CSAH 2			
	SUBTOTAL					**120,686.75**		8,311.80	112,374.95	Forest Lake
	SAP 225-010-002		33,750.00		100%	**33,750.00**	Tied to: 225-120-001	27,897.20	5,852.80	North Branch
	TOTAL		**$2,505,873.15**		**80%**	**$1,998,879.44**		**$2,112,822.25**	**($113,942.81)**	

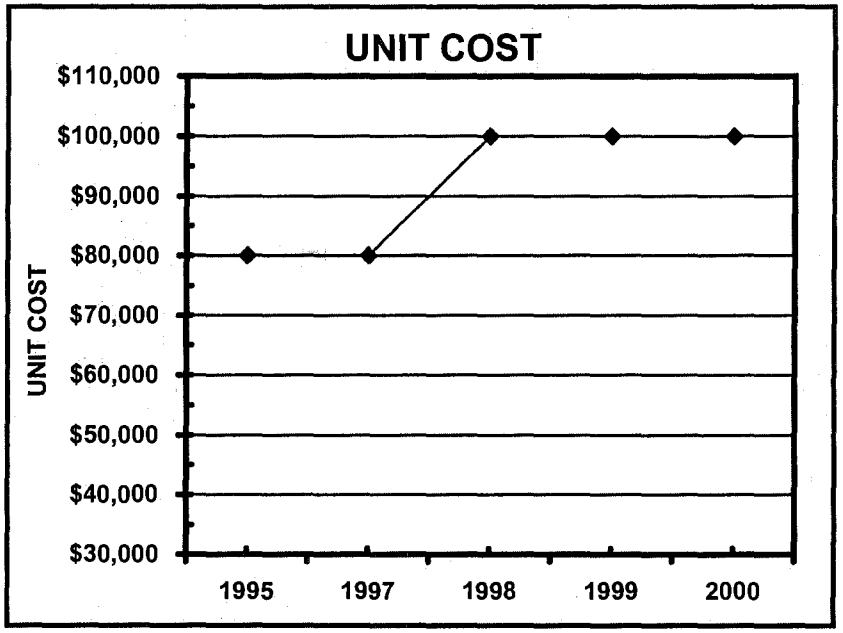
DID NOT INCLUDE:

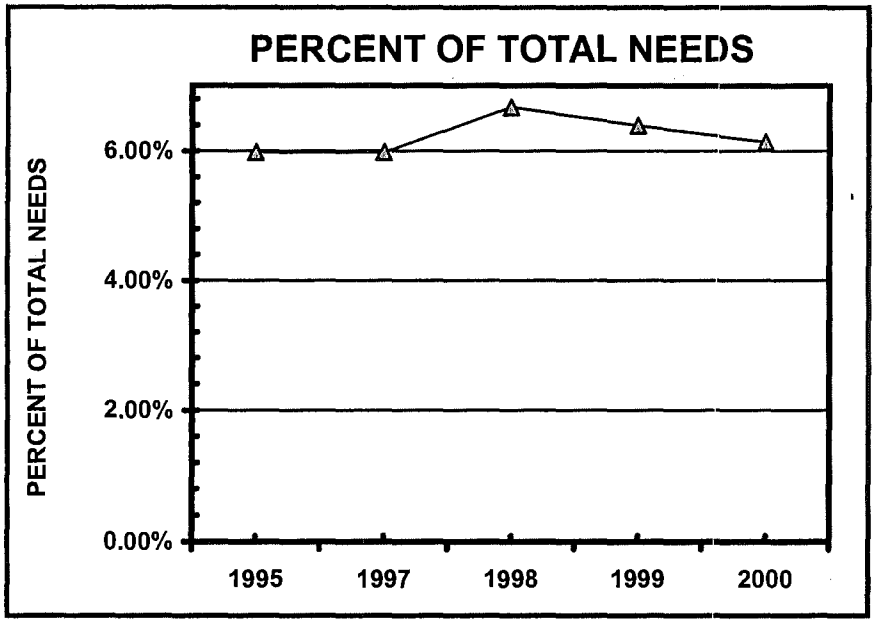
Item Number	Item
2021.501	Mobilization
2104.523	Salvage existing Signal System

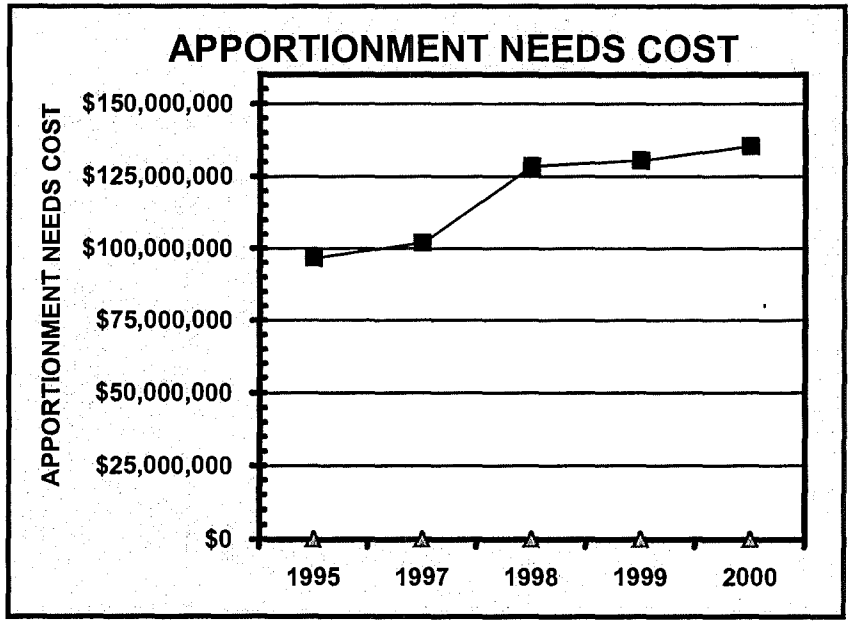
NOTE: Twelve of the forty-five projects (27% of the total projects) that were identified as having money spent on traffic signals could not be used in this study for a variety of reasons, from costs in the abstract of bids not being split out to not having any abstract of bids to work with.

SIGNALS

NEEDS YEAR	PERCENT OF TOTAL NEEDS	UNIT COST	APPORT. NEEDS COST
1995	5.98%	$80,000	$96,567,000
1997	5.98%	80,000	102,004,000
1998	6.67%	99,990	128,529,020
1999	6.39%	99,990	130,524,085
2000	6.13%	99,990	135,357,367







WEAR AND NON WEAR BITUMINOUS

At the June, 2000 Screening Board meeting, a motion was passed asking the Needs Study subcommittee review the concept of using wear and non wear as the basis for bituminous paving unit prices.
One of the attached chart shows bituminous projects let on the MSAS system in 2000 and what the average Unit Cost would have been if the bituminous types had been divided into wear and non wear.
The other chart shows the results of the Unit Price Study on bituminous for projects let in 2000 per the current method of computing Unit Prices, i.e. separating by 2331, 2341, and 2361.
Some projects with small quantities and large costs were not included.
Off system projects were not included. Unit Price study has always only included MSAS dollars spent on the MSAS system.

Some observations that can be made are:

Bit material for mix and bit material for tack coat were not included in this study.

54 projects were included in the Wear study.

46 projects were included in the Non wear study.

The average unit cost for 2331 is $4.04 per ton higher than in last years needs study when there were 80 projects using 2331 compared to 30 projects this year.

The average unit cost for 2341 is $2.06 per ton higher than in last years needs study when there were 82 projects using 2341 compared to 45 this year.

The average unit cost for 2361 is $3.23 per ton lower than in last years needs study when there were 4 projects using 2361 compared to 3 this year.

Questions:

What effect will this have on the quantities on the Design Quantity Tables?

	WEAR				NON WEAR			
	PROPOSED METHOD OF COMPUTING UNIT PRICE							
Project Number	Bituminous Type	Quantity	Total Cost	Unit Cost	Bituminous Type	Quantity	Total Cost	Unit Cost
101-118-003	41	1,072	$35,067.60	$32.71				
104-107-006	41	255	8,415.00	33.00	31	425	$12,750.00	$30.00
104-152-001	41	300	9,900.00	33.00	31	500	15,000.00	30.00
105-133-001	31	613	16,857.50	27.50	31	597	16,119.00	27.00
105-134-001	31	569	15,647.50	27.50	31	536	14,472.00	27.00
109-101-003	31	982	29,012.75	29.54	31	2,455	64,274.40	26.18
109-118-002	31	565	17,267.00	30.56	31	565	17,267.00	30.56
110-111-001	31	565	17,267.00	30.56	31	565	17,267.00	30.56
114-138-001	41	1,750	50,750.00	29.00	31	1,750	48,125.00	27.50
118-122-003	2350	77	2,079.00	27.00	2350	156	3,744.00	24.00
118-123-004	2350	77	2,079.00	27.00	2350	168	4,032.00	24.00
118-124-005	2350	54	1,458.00	27.00	2350	116	2,784.00	24.00
118-147-015	2350	2,941	91,171.00	31.00	2350	3,235	97,050.00	30.00
118-194-001	2350	1,523	42,644.00	28.00	2350	2,448	61,200.00	25.00
126-111-002	41	1,660	39,840.00	24.00	31	241	6,748.00	28.00
126-115-004	41	78	1,872.00	24.00	31	10	280.00	28.00
126-116-008	41	65	1,560.00	24.00				
126-120-004	41	186	4,464.00	24.00				
131-212-001	61	1,860	59,520.00	32.00	31	5,280	158,400.00	30.00
138-112-002	41	757	25,170.25	33.25	31	1,056	33,528.00	31.75
140-106-002	41	370	10,730.00	29.00	31	630	15,750.00	25.00
140-111-001	41	680	19,720.00	29.00	31	1,690	39,292.50	23.25
141-328-020	61	1,510	46,511.50	30.80	41	6,714	186,513.10	27.78
141-425-002	61	7,296	231,665.00	31.75				
149-112-004	50 MV3	1,098	31,842.00	29.00	MV 3 50	1,365	36,855.00	27.00
158-298-008	41	298	12,048.14	40.43	31	298	10,489.60	35.20
159-145-001	50 MV3, LV3	1,327	41,468.75	31.25	50 LV	671	20,968.75	31.25
159-154-002	50 LV	650	19,760.00	30.40	LV	1,300	39,520.00	30.40
162-148-001	41	900	25,533.00	28.37	31	1,350	33,844.50	25.07
168-104-001	41	2,909	84,214.55	28.95				
168-150-003	41	650	20,150.00	31.00	31	1,075	30,100.00	28.00
168-160-004	41	1,842	53,325.90	28.95				
170-112-007	41	904	31,188.00	34.50	31	869	31,066.75	35.75
174-102-005	41	2,575	74,675.00	29.00	31	1,562	41,236.80	26.40
174-104-011	41	670	19,430.00	29.00	31	1,480	82,232.80	55.56
176-129-003	41	1,463	55,594.00	38.00	31	2,634	97,485.00	37.01
176-130-002	41	1,218	46,284.00	38.00	31	2,193	81,141.00	37.00
180-108-001	47B	996	26,954.50	27.06	31, 41	2,985	82,784.00	27.73
180-110-001	47B	2,850	77,235.00	27.10	31, 41	8,550	228,570.00	26.73
185-121-016	47	1,350	42,862.50	31.75	47, 31	2,700	81,675.00	30.25
185-237-002	41	977	30,287.00	31.00	31	977	28,333.00	29.00
189-106-009	41	2,578	92,555.00	35.90	31, 41	7,333	234,077.00	31.92
195-103-008	41	1,500	43,500.00	29.00				
195-114-002	41	1,485	44,550.00	30.00	31	55	1,925.00	35.00
197-110-002	50 LV4	315	10,135.84	32.18	50 LV2	411	12,644.70	30.77
200-101-009	50 MV3	114	3,013.02	26.43	50 LV 3	114	2,827.20	24.80
203-106-002	50 LV4	315	10,135.84	32.18	50 LV2	411	12,644.70	30.77
203-113-001	50 LV4	547	17,578.25	32.14	50 LV2	712	21,899.40	30.76
207-110-001	47	945	34,492.50	36.50	31	2,193	78,175.00	35.65
208-108-004	41	730	19,710.00	27.00	31	950	21,375.00	22.50
208-112-001	50 LV3	2,300	65,550.00	28.50				
209-105-001	41	335	11,055.00	33.00	31	559	18,447.00	33.00
209-108-004	50 MV4	754	22,582.30	29.95	50 MV3	1,130	32,374.50	28.65
230-101-001	50 LV	2,134	61,883.00	29.00	50 LV	2,710	75,880.00	28.00
TOTAL		**62,534**	**$1,910,261.19**	**$30.55**		**75,724**	**$2,253,167.70**	**$29.76**

UNIT COST BY BITUMINOUS TYPES

CURRENT METHOD OF COMPUTING UNIT PRICE

Project Number	2331 Quantity	2331 Total Cost	2331 Unit Cost	2341 Includes 2350 Quantity	2341 Includes 2350 Total Cost	2341 Includes 2350 Unit Cost	2361 Quantity	2361 Total Cost	2361 Unit Cost
101-119-003				1072	$35,067.60	$32.71			
104-107-006	425	$12,750.00	$30.00	255	8,415.00	33.00			
104-152-001	500	15,000.00	30.00	300	9,900.00	33.00			
105-133-001	1,210	32,976.50	27.25						
105-134-001	1,105	30,119.50	27.26						
109-101-003	3,437	93,287.15	27.14						
109-118-002	1,130	34,534.00	30.56						
110-111-001	1,130	34,534.00	30.56						
114-138-001	1,750	48,125.00	27.50	1,750	50,750.00	29.00			
118-122-003				233	5,823.00	24.99			
118-123-004				245	6,111.00	24.94			
118-124-005				170	4,242.00	24.95			
118-147-015				6,176	188,221.00	30.48			
118-194-001				3,971	103,844.00	26.15			
126-111-002	241	6,748.00	28.00	1,660	39,840.00	24.00			
126-115-004	10	280.00	28.00	78	1,872.00	24.00			
126-116-008				65	1,560.00	24.00			
126-120-004				186	4,464.00	24.00			
131-212-001	5,280	158,400.00	30.00				1,860	$59,520.00	$32.00
138-112-002	1,056	33,528.00	31.75	757	25,170.25	33.25			
140-106-002	630	15,750.00	25.00	370	10,730.00	29.00			
140-111-001	1,690	39,292.50	23.25	680	19,720.00	29.00			
141-328-020				6,714	186,513.10	27.78	1,510	46,511.50	30.80
141-425-002							7,296	231,665.00	31.75
149-112-004				2,463	68,697.00	27.89			
158-298-008	298	10,489.60	35.20	298	12,048.14	40.43			
159-145-001				1,998	62,437.50	31.25			
159-154-002				1,950	59,280.00	30.40			
162-148-001	1,350	33,844.50	25.07	900	25,533.00	28.37			
168-104-001				2,909	84,214.55	28.95			
168-150-003	1,075	30,100.00	28.00	650	20,150.00	31.00			
168-160-004				1,842	53,325.90	28.95			
170-112-007	869	31,066.75	35.75	904	31,188.00	34.50			
174-102-005	1,562	41,236.80	26.40	2,575	74,675.00	29.00			
174-104-011	1,480	82,232.80	55.56	670	19,430.00	29.00			
176-129-003	2,634	97,485.00	37.01	1,463	55,594.00	38.00			
176-130-002	2,193	81,141.00	37.00	1,218	46,284.00	38.00			
180-108-001	1,990	53,133.00	26.70	995	26,666.00	26.80			
180-110-001	5,700	152,190.00	26.70	2,850	76,380.00	26.80			
185-121-016	1,350	38,812.50	28.75						
185-237-002	977	28,333.00	29.00	977	30,287.00	31.00			
189-106-009				5,837	196,645.00	33.69			
195-103-008				1,500	43,500.00	29.00			
195-114-002	55	1,925.00	35.00	1,485	44,550.00	30.00			
197-110-002				726	22,780.54	31.38			
201-101-009				228	5,840.22	25.62			
203-106-002				726	22,780.54	31.38			
203-113-001				1,259	39,477.65	31.36			
207-110-001	2,193	78,175.00	35.65						
208-108-004	950	21,375.00	22.50	730	19,710.00	27.00			
208-112-001				2,300	65,550.00	28.50			
209-105-001	559	18,447.00	33.00	335	11,055.00	33.00			
209-108-004				1,884	54,956.80	29.17			
230-101-001				4,844	137,763.00	28.44			
TOTAL	**26,228**	**$784,295.10**	**$29.90**	**69,571**	**$2,059,659.19**	**$29.61**	**10,666**	**$337,696.50**	**$31.66**

Municipal State Aid Needs Study
RURAL DESIGN QUANTITY TABLE

(Quantities Based for a One Mile Section)

Revised June, 1997

DESIGN DATA	SOIL TYPE	GRADING DEPTH (Inches)	GRADING Cu. Yds	CLASS 5 BASE DEPTH (Inches)	CLASS 5 BASE (Tons)	BIT BASE No. 2331	INITIAL SURFACE	No. 2221 GRAVEL SHOULDERS (Tons)	ADDITIONAL SURFACE	No. 2221 GRAVEL RESHOULDERS (Tons)
Proj. ADT 0-399	50	18.75	11,473	3.25	3,750					
24 Foot surface	75	22.50	14,267	7.00	7,786		No. 2331		No. 2331	
32' Roadbed	100	26.00	17,022	10.50	12,081	2.0"	1.5"	711	1.5"	394
2 Lanes 7 ton ult 9 ton	130	30.50	20,770	15.00	17,995	1613 tons	1162 tons		1162 tons	
Proj. ADT 400 - 749	50	22.50	14,267	7.00	7,786					
24 Foot surface	75	26.00	17,022	10.50	12,081		No. 2331		No. 2331	
32' Roadbed	100	29.50	19,917	14.00	16,643	2.0"	1.5"	711	1.5"	394
2 Lanes 9 ton	130	33.75	23,622	18.25	22,541	1613 tons	1162 tons		1162 tons	
Proj. ADT 750 - 1499	50	24.25	16,953	8.75	10,864					
24 Foot surface	75	29.00	21,097	13.50	17,461		No. 2341		No. 2341	
36' Roadbed	100	33.00	24,789	17.75	23,782	2.0"	1.5"	931	1.5"	579
2 Lanes 9 ton	130	38.50	30,166	23.00	32,135	1613 tons	1162 tons		1162 tons	
Proj. ADT 1500 & over	50	27.00	20,772	10.00	13,980					
24 Foot surface	75	32.25	25,840	15.25	22,194		No. 2341		No. 2341	
40' Roadbed	100	37.50	31,225	20.50	31,010	2.0"	3"	1885	1.5"	370
2 Lanes 10 ton	130	44.00	38,333	27.00	42,760	1613 tons	2323 tons		1162 tons	
Proj. ADT 5000 & over	50	29.00	37,038	12.00	28,551					
48 Foot surface	75	35.00	46,040	18.00	44,006		No. 2341		No. 2341	
72' Roadbed	100	41.00	55,457	24.00	60,248	2.0"	3"	2326	1.5"	554
4 Lanes 10 ton	130	48.50	67,811	31.50	81,655	3162 tons	4646 tons		2323 tons	

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This table is for needs study reference only and is not to be construed as a guide for rigid or flexible design determination.

Quantities of approved street widths willl be prorated. When the quantities from the table do not apply, use an estimated amount.

Municipal State Aid Street Needs Study
URBAN DESIGN QUANTITY TABLE
(Quantities Based On A One Mile Section)

Revised June, 1997

DESIGN DATA	SOIL TYPE	GRADING DEPTH (Inches)	GRADING CUBIC (Yards)	CLASS 5 BASE DEPTH (Inches)	CLASS 5 BASE QUANTITY (Tons)	NO. 2331 BIT. BASE (Tons)	NO. 2341 BIT. SURFACE (Tons)	ADDITIONAL SURFACE (Tons)
Proj. ADT 1-1999	50	18.5	13,900	3.0	4,189			
42 Feet - 9 ton	75	22.5	16,966	7.0	9,774			No. 2341
2 Traffic Lanes	100	25.5	19,280	10.0	13,963	2,452	1,839	2,452
2 Parking Lanes	130	30.5	23,164	15.0	20,944	(2")	(1 1/2 ")	(2")
Proj. ADT 2000-4999	50	22.5	17,699	7.0	10,205			
44 Feet - 9 ton	75	25.5	20,111	10.0	14,579			No. 2341
2 Traffic Lanes	100	29.5	23,346	14.0	20,410	2,581	1,936	2,581
2 Parking Lanes	130	33.5	26,602	18.0	26,242	(2")	(1 1/2 ")	(2")
Proj. ADT 5000 & over	50	25.5	21,773	9.0	14,230			
48 Feet - 10 ton	75	29.5	25,269	13.0	20,554			No. 2361
2 Traffic Lanes	100	34.5	29,669	18.0	28,459	2,839	3,549	1420
2 Parking Lanes	130	39.5	34,103	23.0	36,365	(2")	(2 1/2 ")	(1")
Proj. ADT 7000-9999	50	27.0	31,882	10.0	21,971			
68 Feet - 10 ton	75	32.0	37,894	15.0	32,956			No. 2361
4 Traffic Lanes	100	38.0	45,154	21.0	46,138	4,130	6,195	2,065
2 Parking Lanes	130	44.0	52,463	27.0	59,321	(2")	(3")	(1")
Proj. ADT 10000 & over	50	29.0	36,173	12.0	27,843			
72 Feet - 10 ton	75	35.0	43,800	18.0	41,765			No. 2361
4 Traffic Lanes	100	41.0	51,475	24.0	55,686	4,388	6,582	2194
2 Parking Lanes	130	49.0	61,785	31.0	71,928	(2")	(3")	(1")

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This table is for needs study reference only and is not to be construed as a guide for rigid or flexible design determination.

Quantities of approved street widths willl be prorated. When the quantities from the table do not apply, use an estimated amount.

METRO SCREENING BOARD REPRESENTATIVES

The spring, 1998 Screening Board minutes state:

> Pat Murphy suggested that we make a one-time change in the term for metro board members so two do not come on at the same time. He suggests that something be done at the January CEAM meeting to formalize this. Larry Read moved to accept Mr. Murphy's suggestion. Jack Bittle seconded the motion. Motion carried.

The spring 1999 Screening Board minutes state:

> Metro Division's Screening Board representative terms. The current terms for both the east and west Metro Screening Board representatives' terms expire on the same year. The question has been raised as to whether there terms should be staggered to provide better continuity of representation for the Metro area. Lee Gustafson indicated he felt it would be appropriate for the terms to be staggered to provide for better continuity.

And:

> It was moved by Mark Winson, seconded by David Olson to have State Aid implement staggered terms for the Metro District Representatives when the opportunity presents itself. Motion carried.

The Metro West representative was elected to the executive committee in January 2001. It was felt that this would be a good time to stagger the Metro representatives terms.

The District 1 representative has agreed to extend his term by one year, while the new Metro West representative will start a new 3-year term this year. This will allow us to adhere to the Screening Board resolution that states:

> 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.

MUNICIPAL SCREENING BOARD TERMS

Pupose: To adjust the term length of the Municipal Screening Board Representatives so that the Metro East and the Metro West representatives terms do not coincide.

CURRENT MUNICIPAL SCREENING BOARD TERMS

X = First Year of Term

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Dist 1		X			X			X	
Dist 2	X			X			X		
Dist 3	X			X			X		
Dist 4		X			X			X	
Metro West			X			X			X
Dist 6		X			X			X	
Dist 7			X			X			X
Dist 8	X			X			X		
Metro East			X			X			X

PROPOSED MUNICIPAL SCREENING BOARD TERMS

X = First Year of Term
O= first year of revised terms

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Dist 1			O			O			O
Dist 2	X			X			X		
Dist 3	X			X			X		
Dist 4		X			X			X	
Metro West		O			O			O	
Dist 6		X			X			X	
Dist 7			X			X			X
Dist 8	X			X			X		
Metro East			X			X			X

March 12, 2001

GENERAL FUND ADVANCES

Revised June, 1999 November 2000

Guidelines

The October, 2000 Screening Board discussed the possibility of revising the limits that a smaller city may advance. It was explained that any changes were ultimately an administrative decision by the State Aid Engineer with any input and discussion by the Screening Board being taken into consideration. The Screening Board recommended that the limits that a smaller city can advance be raised to $750,000.
After discussing it with State Aid Finance, the following revisions will go into effect for advances from the 2002 allocation:

Cities with a construction allotment of $750,000 or less can now advance up to three times its previous years construction allotment or $750,000, whichever is less.

Cities with a construction allotment of more than $750,000 can now advance up to its previous years construction allotment up to a maximum of $3,000,000.

Clarification of Guidelines

The maximum Municipal State Aid construction dollars that can be advanced in any one year shall be the difference between the Municipal State Aid construction fund balance at the end of the preceding calendar year, current year projected disbursements, and $20 million (8/99, 12/14/99, 9/00).

A City Council Resolution is required to advance funds. The City Council Resolution can be passed at any time, but must be submitted with, or prior to, any payment requests. It need not be project specific, but must include the maximum amount of advance the City Council is authorizing for financing approved Municipal State Aid Street projects in that year. The resolution should be mailed directly to State Aid Finance. **The resolution does not reserve the funds.** The funds are paid on a first come first served basis established by payment requests. As payment requests are submitted by the city, the amount required to process the payment (up to the

resolution/allowable amount) will be added to the city's account. The payment request is verified by the form 'Report of State Aid Contract'.

To "reserve" the funds, the City Engineer may submit a "Request to Reserve Advanced Funding" form (Fig. G 5-892.563) up to 8 weeks prior to anticipating or incurring an obligation where advanced funding is required. This form "reserves" the funds in the city's account. Once the request has been approved by State Aid and the funds added to the city's account, a copy of the approved request will be returned to the City Engineer. The "Request to Reserve Advanced Funding" form should be mailed to Diane McCabe in State Aid. This form is not required, but will allow the funds to be set aside up to eight weeks in advance of the payment request.

General Fund Advance repayments may be relaxed to accommodate the payment on the principal of State Aid bonds.

If the General Fund runs out of funds to advance, a city has to submit a new city council resolution if more funds don't come available until the following year.

Advances will always be processed on a 'first come first served' basis.

Fund 250

2000 MSAS year end construction balance available	$ 59,453,087.15
2001 Allotment	$ 84,711,549.00
Total available	$ 144,164,636.15
Less: Estimated CY 2001 expenditures (updated quarterly)	$ 70,000,000.00
Balance	$ 74,164,636.15
Less: amount required in account	$ (20,000,000.00)
Maximum amount for advance in CY 2001	$ 54,164,636.15
Amount advanced to date (listed below)	$ 5,455,473.00
Balance availabe to advance	$ 48,709,163.15

CITY NAME	RESOLUTION AMOUNT	YEAR	REQUEST TO RESERVE ADV FUNDING	ADVANCE AMOUNT	REPAID AMOUNT	BALANCE	COMMENTS
Alexandria	$ 500,000.00	2001	190,000.00	190,000.00		190,000.00	
Coon Rapids	$ 1,500,000.00	2001	1,500,000.00	1,500,000.00		1,500,000.00	
Ham Lake	$ 50,000.00	2001	50,000.00	50,000.00			
Little Canada	$ 323,873.00	2000	323,873.00	323,873.00	296,260.00	27,613.00	
Mahtomedi	$ 500,000.00	2000	500,000.00	500,000.00	215,661.00	284,339.00	
Minnetonka	$ 1,300,000.00	2001	1,300,000.00	1,300,000.00		1,300,000.00	
Oakdale	$ 365,000.00	2001	365,000.00	365,000.00		365,000.00	
Sartell	$ 750,000.00	2001	625,599.00	625,599.00		625,599.00	
Stewartville	$ 250,000.00	2000	250,000.00	250,000.00	120,234.00	129,766.00	
St. Anthony	$ 500,000.00	2000	500,000.00	500,000.00	141,844.00	358,156.00	
St. Louis Park	$ 145,000.00	2001	145,000.00	145,000.00		145,000.00	
White Bear Lake	$ 530,000.00	2001	530,000.00	530,000.00		530,000.00	
TOTAL	$ 6,713,873.00		$6,279,472.00	$ 6,279,472.00	$ 773,999.00	$ 5,455,473.00	

cc: Paul Stine, Diane McCabe Marshall Johnston (5)

COUNTY HIGHWAY TURNBACK POLICY

Definitions:

County Highway – Either a County State Aid Highway or a County Road

County Highway Turnback- A CSAH or a County Road which has been released by the county and designated as an MSAS roadway. A designation request must be approved and a Commissioner's Order written. A County Highway Turnback may be either County Road (CR) Turnback or a County State Aid (CSAH) Turnback. (See Minnesota Statute 162.09 Subdivision 1). A County Highway Turnback designation has to stay with the County Highway turned back and is not transferable to any other roadways.

Basic Mileage- Total improved mileage of local streets, county roads and county road turnbacks. Frontage roads which are not designated trunk highway, trunk highway turnback or on the County State Aid Highway System shall be considered in the computation of the basic street mileage. A city is allowed to designate 20% of this mileage as MSAS. (See Screening Board Resolutions in the back of the most current booklet).

MILEAGE CONSIDERATIONS

County State Aid Highway Turnbacks

A CSAH Turnback **is not** included in a city's basic mileage, which means it **is not** included in the computation for a city's 20% allowable mileage. However, a city may draw Construction Needs and generate allocation on 100% of the length of the CSAH Turnback

County Road Turnbacks

A County Road Turnback **is** included in a city's basic mileage, so it **is** included in the computation for a city's 20% allowable mileage. A city may also draw Construction Needs and generate allocation on 100% of the length of the County Road Turnback.

Jurisdictional Exchanges

County Road for MSAS

Only the **extra** mileage a city receives in an exchange between a County Road and an MSAS route **will be** considered as a County Road Turnback.

If the mileage of a jurisdictional exchange is **even**, the County Road **will not be** considered as a County Road Turnback.

If a city receives **less** mileage in a jurisdictional exchange, the County Road **will not be** considered as a County Road Turnback.

CSAH for MSAS

Only the **extra** mileage a city receives in an exchange between a CSAH and an MSAS route **will be** considered as a CSAH Turnback.

If the mileage of a jurisdictional exchange is **even**, the CSAH **will not be** considered as a CSAH Turnback.

If a city receives **less** mileage in a jurisdictional exchange, the CSAH **will not be** considered as a CSAH Turnback

NOTE:
When a city receives **less** mileage in a CSAH exchange it will have less mileage to designate within its 20% mileage limitation and may have to revoke mileage the following year when it computes its allowable mileage.
Explanation: After this exchange is completed, a city will have more CSAH mileage and less MSAS mileage than before the exchange. The new CSAH mileage was included in the city's basic mileage when it was MSAS (before the exchange) but is not included when it is CSAH (after the exchange). So, after the jurisdictional exchange the city will have less basic mileage and 20% of that mileage will be a smaller number.
If a city has more mileage designated than the new, lower 20% allowable mileage, the city will be over designated and be required to revoke some mileage. **If a revocation is necessary, it will not have to be done until the following year after a city computes its new allowable mileage.**

MSAS designation on a County Road

County Roads can be designated as MSAS. If a County Road which is designated as MSAS is turned back to the city, it will not be considered as County Road Turnback.

MISCELLANEOUS

A CSAH which was previously designated as Trunk Highway turnback on the CSAH system and is turned back to the city will lose all status as a TH turnback and only be considered as CSAH Turnback.

A city that had previously been over 5,000 population, lost its eligibility for an MSAS system and regained it shall revoke all streets designated as CSAH at the time of eligibility loss and consider them for MSAS designation. These roads will not be eligible for consideration as CSAH turnback designation.

In a city that becomes eligible for MSAS designation for the first time all CSAH routes which serve only a municipal function and have both termini within or at the municipal boundary, should be revoked as CSAH and considered for MSAS designation. These roads will not be eligible for consideration as CSAH turnbacks.

Local Road Research Board Projects for Calendar Year 2000

INV	TITLE	Project Total	1999	2000	2001
645	Implementation of Research	Ongoing	$ 150,000	$ 150,000	*$150,000*
668	Technology Transfer Center, U of M - Base	Ongoing	150,000	150,000	*150,000*
	Technology Transfer Center, U of M - Continuing Projects				
	Circuit Training and Assistance Program (CTAP)	Ongoing	127,500	77,500	*77,500*
	Minnesota Maintenance Research Expos	Ongoing	14,000	14,000	*14,000*
	Transportation Student Development	Ongoing	4,000	4,000	*4,000*
	Preventive Bridge Maintenance Course Training		-	25,000	-
676	Mn/ROAD	Ongoing	500,000	500,000	*500,000*
711	Surface Stabilization on Low-Volume Roads	$96,000		8,000	
739	Low Temperature Cracking of Asphalt Concrete Pavements	$290,000	70,000	74,000	76,000
740	Subgrade Stabilization Techniq... Low Volume Roads Minnesota	$130,000	40,000	15,000	-
745	Library Services for Local Governments	Ongoing	50,000	50,000	50,000
747	Improvement of Minnesota Low-Volume ... Design and Construction Practice	$155,000	75,000	80,000	-
749	Surface Treatment Proposal	$25,000	20,000	2,500	2,500
750	Algorithms for Vehicle Classification, Phase II	$62,000	10,000	52,000	-
752	Response of Corrugated Polyethylene pipe with shallow cover to known truck loadings	$565,000	-	60,000	30,000
753	Duration of Springload Limits on Gravel Roads	$35,000	-	35,000	-
754	Supplement to Low Volume Road Best Practices Project	$25,000	-	25,000	-
755	Pavement Preventative Maintenance Methods: Phase II	$50,000	-	22,500	22,500
756	Methods to reduse Traffic speeds in High Pedestrian areas	$100,676	-	67,117	33,559
757	Designing Pavement drainage Systems	$75,000	-	38,000	37,000
758	Study of Physical,Geological, Minerological & chemical properties of Coarse Taconite Tailings	$126,000	-	63,000	63,000
759	Impact of Roughness elementson reducing Shear stress acting on soil Particles	$27,000	-	27,000	-
760	Reducing Crashes at Controlled Rural intersections	$67,203	-	67,203	-
761	Eliminating driver"Blind Spots" at Rural intersections:Effects of Signage & Vehicle velociy	$41,750	-	41,750	-
762	Twin Cities Regional Dynamics: Phase IV	$80,000	-	40,000	-
763	Effeciveness of In-Lane Rumble Strips	$15,000	-	15,000	-
764	Effect of Transverse Cracks on Stresses & Strains in Flexible Pavements	$123,957	-	82,638	41,319
765	Evaluation of Dust control products(HITEC)	$17,500	-	17,500	
766	Evaluation of Cold Inplace Recycling	$66,000	-	46,000	15,000
767	Flexible pavement performance wrt Aggregate	$75,500	-	65,500	10,000
768	Flexible pavement performance wrt Aggregate	$30,000	-	3,000	3,000
700	Field Performance of Integral Abutment	$103,000	-	35,525	35,325
999	Project Administration	Ongoing	160,000	248,050	280,000
	TOTALS		NA	$ 2,201,783	$ 1,496,378

***Italicized* = Anticipated**

Budget Summary CY 2000

Funds allotted for 2000	$2,041,557
Funds Carried over from 1999	**$217,437**
Funds available for 2000	$2,258,994
Present 2000 Commitment	$2,201,783
CY 2000 Funds not Committed to Date	$57,211

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City	$ 483,441
County	1,558,116
Total	$ 2,041,557

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Local Road Research Board Projects for Calendar Year 2001

INV	TITLE	PROJECT TOTAL	2000	2001	2002
645	Implementation of Research	Ongoing	$ 150,000	$ 150,000	$ 150,000
668	Technology Transfer Center, U of M - Base	Ongoing	150,000	150,000	*150,000*
	Technology Transfer Center, U of M - Cont. Projects:				
	Circuit Training and Assistance Program (CTAP)	Ongoing	77,500	70,000	*70,000*
	Minnesota Maintenance Research Expos	Ongoing	14,000	20,000	*20,000*
	Transportation Student Development	Ongoing	4,000	4,000	*4,000*
	Preventive Bridge Maintenance Course Training		25,000	0	0
676	Mn/ROAD	Ongoing	500,000	500,000	*500,000*
700	Field Performance of Integral Abutments	228,000	35,525	33,325	34,150
739	Low Temperature Cracking of Asphalt Concrete Pavements	290,000	74,000	76,000	70,000
745	Library Services for Local Governments	Ongoing	50,000	50,000	*50,000*
749	Surface Treatment Proposal	25,000	15,000	2,500	0
752	Response of Corrugated Polyethylene Pipe with Shallow Cover to Known Truck Loadings	565,000	60,000	30,000	0
755	Pavement Preventative Maintenance Methods: Phase II	50,000	22,500	22,500	0
756	Methods to Reduce Traffic Speeds in High Pedestrian Areas	107,506	61,271	46,235	0
757	Designing Pavement Drainage Systems	75,000	38,000	37,000	0
758	Study of Physical,Geological, Minerological & Chemical Properties of Coarse Taconite Tailings	126,000	63,000	63,000	0
764	Effect of Transverse Cracks on Stresses & Strains in Flexible Pavements	123,957	82,638	41,319	0
766	Evaluation of Cold Inplace Recycling	66,000	25,000	15,000	5,000
767	Flexible Pavement Performance in Relation to Aggregate Base and Asphalt Mixture at Low-Temperature Characteristics	75,500	65,500	10,000	0
768	Geosynthetics in Roadway Design	30,000	0	3,000	3,000
769	**Cost Comparison of Treatments Used to Maintain or Upgrade Aggregate Roads**	**100,000**	0	**50,000**	**50,000**
770	**Repair of Rubberized Crack Filler/Joint Filler**	**90,000**	0	**40,000**	**25,000**
771	**Use of Ground Penetrating Radar to Review Cross Cross Section of Road**	**75,000**	0	**50,000**	**25,000**
772*	**Best Practices for Local Pavement Subgrades in Minnesota**	**117,455**	0	**0**	**0**
773	**Environmental Effect of the Use of Shredded Tires As Use for Light-Weight Fills**	**100,000**	0	**60,000**	**20,000**
774	**Driver Assistive Systems for Rural Applications: A Path to Deployment**	**141,860**	0	**141,860**	**0**
775	**Accident Analysis for Low-Volume Roads**	**41,409**	0	**41,409**	**0**
776	**Improving the Design of Roadside Ditches to Decrease Transportation-Related Surface Water Pollution**	**82,770**	0	**50,000**	**32,770**
777	**Statewide Implications of Transportation Financing Reform: Impacts on Rural and Other Low-Traffic Roads**	**276,000**	0	**138,000**	**100,000**
778	**How to Safely Accommodate Pedestrians Through an Intersection with Free Flow Legs**	**71,356**	0	**35,678**	**35,678**
779	**Evaluation of Asphalt Binders Used for Cold In-Place Recycling**	**40,487**	0	**13,500**	**26,987**
999	Project Administration	Ongoing	280,000	280,000	*280,000*
	TOTALS		N/A	$2,224,326	$1,401,420

Italicized **= Anticipated**

*Revised Workplan of Inv. No. 740, budgeted @ $130,000, (CY '98 - $75,000; CY '99 - $40,000 & C.Y. '00 - $15,000).

Budget Summary CY 2001

Funds allotted for 2001	$2,155,046
Unprogrammed Funds Carried over from 2000	57,211
Funds available from Inv. 740	12,545
Funds available for 2001	$2,224,802
Present 2001Commitment	$2,224,326
CY 2001 Funds not Committed to Date	**$476**

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City	$516,013
County	1,639,033
Total	$2,155,046

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RELATIONSHIP OF CONSTRUCTION BALANCE TO CONSTRUCTION ALLOTMENT

The amount spent on construction projects is computed by the difference between the previous year's and current years unencumbered construction balances plus the current years construction apportionment. Does not include State Aid Advances.

App. Year		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
1973		94	1,580.45	$26,333,918	$15,164,273	$12,855,250	1.7366	0.8477
1974		95	1,608.06	29,760,552	18,052,386	14,625,752	1.6486	0.8102
1975		99	1,629.30	33,239,840	19,014,171	15,534,883	1.7482	0.8170
1976		101	1,718.92	37,478,614	18,971,282	14,732,508	1.9755	0.7766
1977		101	1,748.55	43,817,240	23,350,429	17,011,803	1.8765	0.7285
1978		104	1,807.94	45,254,560	23,517,393	22,080,073	1.9243	0.9389
1979		106	1,853.71	48,960,135	26,196,935	22,491,360	1.8689	0.8585
1980		106	1,889.03	51,499,922	29,082,865	26,543,078	1.7708	0.9127
1981		106	1,933.64	55,191,785	30,160,696	26,468,833	1.8299	0.8776
1982		105	1,976.17	57,550,334	36,255,443	33,896,894	1.5874	0.9349
1983		106	2,022.37	68,596,586	39,660,963	28,614,711	1.7296	0.7215
1984		106	2,047.23	76,739,685	41,962,145	33,819,046	1.8288	0.8059
1985		107	2,110.52	77,761,378	49,151,218	48,129,525	1.5821	0.9792
1986		107	2,139.42	78,311,767	50,809,002	50,258,613	1.5413	0.9892
1987	*	107	2,148.07	83,574,312	46,716,190	41,453,645	1.7890	0.8874
1988		108	2,171.89	85,635,991	49,093,724	47,032,045	1.7443	0.9580
1989		109	2,205.05	105,147,959	65,374,509	45,862,541	1.6084	0.7015
1990		112	2,265.64	119,384,013	68,906,409	54,670,355	1.7326	0.7934
1991		113	2,330.30	120,663,647	66,677,426	65,397,792	1.8097	0.9808
1992		116	2,376.79	129,836,670	66,694,378	57,521,355	1.9467	0.8625
1993		116	2,410.53	109,010,201	64,077,980	84,904,449	1.7012	1.3250
1994		117	2,471.04	102,263,355	62,220,930	68,967,776	1.6436	1.1084
1995		118	2,526.39	89,545,533	62,994,481	75,712,303	1.4215	1.2019
1996		119	2,614.71	62,993,508	70,289,831	96,841,856	0.8962	1.3778
1997	**	122	2,740.46	49,110,546	69,856,915	83,739,877	0.7030	1.1987
1998		125	2,815.99	44,845,521	72,626,164	76,891,189	0.6175	1.0587
1999		126	2,859.05	55,028,453	75,595,243	65,412,311	0.7279	0.8653
2000		127	2,910.87	72,385,813	80,189,255	62,831,895	0.9027	0.7835
2001		129	2,972.16		84,711,549			

* The date for the unencumbered balance deduction was changed from June 30 to September 1. Effective September 1,1986.

** The date for the unencumbered balance deduction was changed from September 1 to December 31. Effective December 31,1996.

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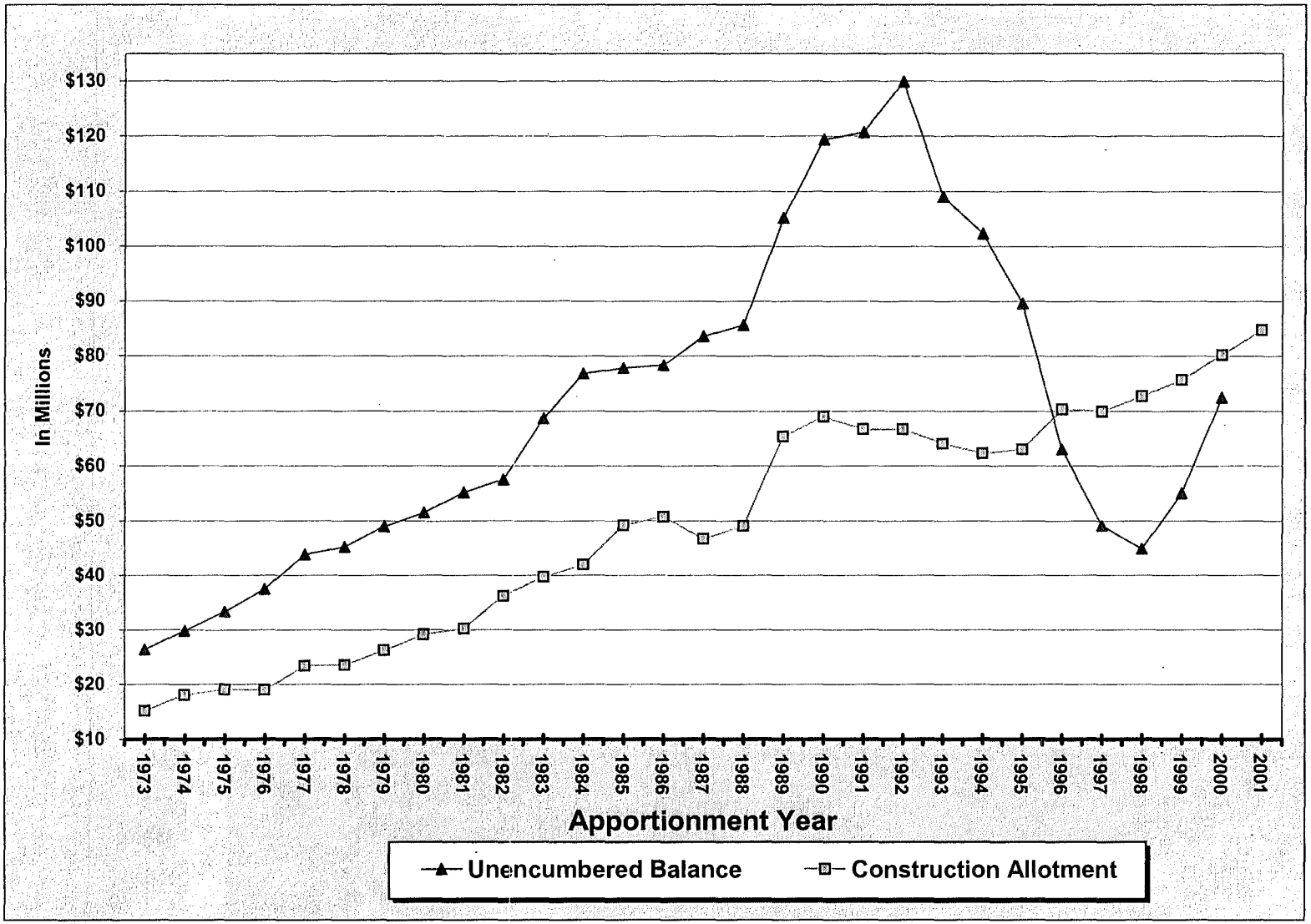
RELATIONSHIP OF CONSTRUCTION BALANCE TO CONSTRUCTION ALLOTMENT



APPORTIONMENT RANKINGS

Municipality	Total Needs Mileage	2000 Population Apportionment Per Need Mile
Forest Lake	5.53	$45,480
Falcon Heights	2.54	35,726
Hopkins	8.54	33,596
Minneapolis	203.36	30,474
New Hope	12.70	28,947
St. Paul	164.41	27,856
Vadnais Heights	8.32	27,262
St. Louis Park	28.68	25,948
New Brighton	14.95	25,774
Oakdale	17.39	25,472
Columbia Heights	12.53	25,389
Stewartville	3.54	25,277
West St. Paul	13.10	25,232
St. Anthony	5.63	25,204
Coon Rapids	41.72	25,191
Waseca	6.42	24,702
St. Joseph	3.47	24,609
Shoreview	18.49	24,152
Anoka	12.64	24,150
Robbinsdale	10.10	23,978
Richfield	25.49	23,568
Northfield	12.06	22,956
Brooklyn Park	47.97	22,840
Burnsville	44.05	22,649
Eagan	45.43	22,630
Brooklyn Center	21.56	22,540
Crystal	17.88	22,382
White Bear Lake	20.35	22,025
Arden Hills	7.41	21,945
Blaine	35.60	21,816
Apple Valley	34.93	21,585
Maplewood	27.98	21,513
Rochester	64.18	21,502
Inver Grove Heights	23.86	21,379
South St. Paul	16.32	20,819
Champlin	17.01	20,811
Owatonna	17.56	20,694
Spring Lake Park	5.82	20,644
Mound	8.05	20,505
Eden Prairie	42.66	20,472
Winona	21.75	20,385

Municipality	Total Needs Mileage	2000 Constr. Needs Apportionment Per Need Mile
Crookston	11.53	$35,143
Minneapolis	203.36	30,842
St. Paul	164.41	27,965
Bloomington	75.35	24,817
Fairmont	19.41	24,421
Thief River Falls	14.66	23,825
Farmington	13.05	23,791
New Hope	12.70	23,783
North Mankato	13.06	23,541
St. Louis Park	28.68	23,332
New Ulm	15.33	23,080
Austin	27.70	23,058
Hopkins	8.54	22,728
St. Anthony	5.63	22,658
Woodbury	43.80	22,619
Moorhead	29.71	22,344
Little Canada	10.49	22,051
Faribault	22.22	21,782
Buffalo	11.22	21,614
Lakeville	48.28	21,524
Grand Rapids	11.40	21,008
Glencoe	7.02	20,870
Orono	12.58	20,850
Brooklyn Center	21.56	20,734
Owatonna	17.56	20,357
Maple Grove	45.67	20,261
Stewartville	3.54	20,009
Duluth	111.31	19,992
Hermantown	14.07	19,208
St. Peter	12.66	18,974
Red Wing	22.93	18,909
Crystal	17.88	18,902
Mankato	30.57	18,745
Forest Lake	5.53	18,592
Waite Park	6.48	18,478
Worthington	11.35	18,423
Northfield	12.06	18,333
St. Cloud	54.60	18,189
Rochester	64.18	17,944
Redwood Falls	7.87	17,930
Waseca	6.42	17,867

Municipality	Total Needs Mileage	2000 Total Apportionment Per Need Mile
Forest Lake	5.53	$64,071
Minneapolis	203.36	61,316
Hopkins	8.54	56,324
St. Paul	164.41	55,821
New Hope	12.70	52,730
St. Louis Park	28.68	49,279
St. Anthony	5.63	47,863
Crookston	11.53	47,076
Stewartville	3.54	45,286
Falcon Heights	2.54	44,565
Bloomington	75.35	44,347
Brooklyn Center	21.56	43,274
Waseca	6.42	42,569
St. Joseph	3.47	41,855
Moorhead	29.71	41,626
Columbia Heights	12.53	41,363
Northfield	12.06	41,289
Crystal	17.88	41,284
Coon Rapids	41.72	41,246
Owatonna	17.56	41,051
Vadnais Heights	8.32	40,869
Richfield	25.49	40,532
Anoka	12.64	39,906
Rochester	64.18	39,446
Burnsville	44.05	38,994
Woodbury	43.80	38,881
North Mankato	13.06	38,800
Maplewood	27.98	38,683
New Ulm	15.33	38,599
Oakdale	17.39	38,536
Maple Grove	45.67	38,487
Farmington	13.05	38,269
Mound	8.05	38,227
New Brighton	14.95	38,162
Apple Valley	34.93	37,976
Inver Grove Heights	23.86	37,765
Plymouth	53.68	37,732
Little Canada	10.49	37,656
Eden Prairie	42.66	37,397
Robbinsdale	10.10	37,347
St. Cloud	54.60	36,779

Municipality	Total Needs Mileage	2000 Population Apportionment Per Need Mile
Roseville	28.60	$20,322
North St. Paul	10.68	20,219
Plymouth	53.68	20,155
Mounds View	10.81	20,153
Edina	40.27	19,749
Stillwater	13.80	19,740
Bloomington	75.35	19,530
Moorhead	29.71	19,281
Fridley	25.02	19,245
Hastings	16.10	18,844
St. Cloud	54.60	18,590
Maple Grove	45.67	18,226
Minnetonka	49.89	18,021
Mankato	30.57	17,805
Waconia	5.53	17,711
Chaska	15.13	17,569
International Falls	8.06	17,326
Cottage Grove	30.24	17,322
Waite Park	6.48	17,132
Prior Lake	15.14	16,778
Monticello	7.80	16,728
Savage	18.23	16,676
Sauk Rapids	10.17	16,480
Albert Lea	18.74	16,440
Woodbury	43.80	16,263
Sartell	9.34	16,160
St. Paul Park	5.30	15,947
Little Canada	10.49	15,606
New Ulm	15.33	15,519
Brainerd	14.30	15,450
North Mankato	13.06	15,259
Golden Valley	23.67	14,952
Buffalo	11.22	14,923
Worthington	11.35	14,874
Faribault	22.22	14,689
Big Lake	5.96	14,649
Mahtomedi	8.62	14,608
Marshall	14.88	14,500
Farmington	13.05	14,478
Shorewood	8.24	14,459
Lino Lakes	18.67	14,201
Chanhassen	22.31	14,155
Lakeville	48.28	14,048
Hutchinson	16.52	13,551

Municipality	Total Needs Mileage	2000 Constr. Needs Apportionment Per Need Mile
Sartell	9.34	$17,732
Mound	8.05	17,722
Hutchinson	16.52	17,683
Plymouth	53.68	17,577
St. Joseph	3.47	17,246
St. Paul Park	5.30	17,229
Maplewood	27.98	17,170
Elk River	27.82	17,138
Little Falls	15.67	17,066
Litchfield	8.58	17,063
Dayton	9.28	16,994
Richfield	25.49	16,964
Baxter	12.73	16,942
Eden Prairie	42.66	16,925
Chaska	15.13	16,800
Albert Lea	18.74	$16,699
Savage	18.23	16,399
Apple Valley	34.93	16,391
Inver Grove Heights	23.86	16,386
Lino Lakes	18.67	16,373
Virginia	15.93	16,360
Burnsville	44.05	16,345
International Falls	8.06	16,214
Fergus Falls	24.34	16,127
Coon Rapids	41.72	16,055
Columbia Heights	12.53	15,974
Cloquet	20.14	15,837
Anoka	12.64	15,757
Rosemount	24.14	15,685
Cottage Grove	30.24	15,578
Golden Valley	23.67	15,307
Monticello	7.80	15,128
Cambridge	10.74	15,076
Waconia	5.53	14,756
Winona	21.75	14,710
Blaine	35.60	14,546
Otsego	14.37	14,475
Hibbing	51.31	14,455
Chisholm	7.99	14,416
East Grand Forks	12.48	14,390
White Bear Lake	20.35	14,343
Minnetonka	49.89	14,260
Prior Lake	15.14	14,128
Shakopee	21.88	14,115

Municipality	Total Needs Mileage	2000 Total Apportionment Per Need Mile
West St. Paul	13.10	$36,627
Mankato	30.57	36,550
Buffalo	11.22	36,538
Faribault	22.22	36,472
Austin	27.70	36,429
White Bear Lake	20.35	36,368
Blaine	35.60	36,361
Brooklyn Park	47.97	36,171
Eagan	45.43	35,903
Waite Park	6.48	35,610
Lakeville	48.28	35,571
Winona	21.75	35,095
South St. Paul	16.32	34,726
Shoreview	18.49	34,445
Chaska	15.13	34,369
Fairmont	19.41	34,187
Mounds View	10.81	34,048
North St. Paul	10.68	34,041
Sartell	9.34	33,892
Grand Rapids	11.40	33,890
Roseville	28.60	33,735
Glencoe	7.02	33,733
Arden Hills	7.41	33,615
Thief River Falls	14.66	33,561
International Falls	8.06	33,539
Stillwater	13.80	33,532
Worthington	11.35	33,297
St. Paul Park	5.30	33,176
Albert Lea	18.74	33,139
Savage	18.23	33,075
Duluth	111.31	32,913
Cottage Grove	30.24	32,900
Waconia	5.53	32,467
St. Peter	12.66	32,312
Minnetonka	49.89	32,282
Monticello	7.80	31,856
Edina	40.27	31,809
Champlin	17.01	31,766
Hutchinson	16.52	31,234
Orono	12.58	31,185
Prior Lake	15.14	30,906
Spring Lake Park	5.82	30,587
Lino Lakes	18.67	30,574
Red Wing	22.93	30,562

Municipality	Total Needs Mileage	2000 Population Apportionment Per Need Mile
Austin	27.70	$13,371
St. Peter	12.66	13,339
Willmar	23.91	13,300
Shakopee	21.88	13,264
Duluth	111.31	12,921
Bemidji	15.91	12,902
Grand Rapids	11.40	12,881
Glencoe	7.02	12,864
Mendota Heights	13.51	12,826
Litchfield	8.58	12,362
Crookston	11.53	11,932
Morris	8.00	11,883
East Grand Forks	12.48	11,671
Red Wing	22.93	11,653
Andover	35.58	11,517
Redwood Falls	7.87	11,158
Chisholm	7.99	11,138
Ramsey	29.18	10,858
Montevideo	8.58	10,782
Orono	12.58	10,334
Alexandria	14.39	10,220
Detroit Lakes	12.41	10,109
Elk River	27.82	10,003
Virginia	15.93	9,960
Lake Elmo	11.52	9,899
Fairmont	19.41	9,766
Thief River Falls	14.66	9,736
Rosemount	24.14	9,439
Dayton	9.28	9,352
Cloquet	20.14	9,338
Fergus Falls	24.34	9,216
St. Michael	15.35	9,087
Cambridge	10.74	8,753
Hermantown	14.07	8,747
Ham Lake	24.69	8,538
Little Falls	15.67	8,232
Otsego	14.37	7,832
Baxter	12.73	7,235
East Bethel	26.92	6,504
Corcoran	15.50	6,275
Hugo	15.97	6,253
Hibbing	51.31	5,917
Oak Grove	19.50	5,819
North Branch	21.84	5,216
Average		**$16,999**

Municipality	Total Needs Mileage	2000 Constr. Needs Apportionment Per Need Mile
South St. Paul	16.32	$13,906
Mounds View	10.81	13,895
North St. Paul	10.68	13,822
Stillwater	13.80	13,792
Bemidji	15.91	13,692
Vadnais Heights	8.32	13,607
Andover	35.58	13,455
Roseville	28.60	13,414
Chanhassen	22.31	13,387
Robbinsdale	10.10	13,369
Brooklyn Park	47.97	13,331
Eagan	45.43	13,273
Shorewood	8.24	13,261
St. Michael	15.35	13,216
Willmar	23.91	13,210
North Branch	21.84	13,173
Montevideo	8.58	13,102
Marshall	14.88	13,097
Oakdale	17.39	13,063
Alexandria	14.39	13,029
Detroit Lakes	12.41	13,013
Sauk Rapids	10.17	12,951
Hugo	15.97	12,680
New Brighton	14.95	12,387
Ramsey	29.18	12,329
Brainerd	14.30	12,313
Edina	40.27	12,060
Mendota Heights	13.51	11,970
Mahtomedi	8.62	11,881
Arden Hills	7.41	11,670
West St. Paul	13.10	11,395
Champlin	17.01	10,956
East Bethel	26.92	10,697
Morris	8.00	10,362
Shoreview	18.49	10,293
Ham Lake	24.69	10,097
Spring Lake Park	5.82	9,943
Corcoran	15.50	9,938
Oak Grove	19.50	9,899
Hastings	16.10	9,627
Lake Elmo	11.52	9,373
Fridley	25.02	9,265
Falcon Heights	2.54	8,839
Big Lake	5.96	4,487
Average		**$16,438**

Municipality	Total Needs Mileage	2000 Total Apportionment Per Need Mile
Golden Valley	23.67	$30,259
Sauk Rapids	10.17	29,431
Litchfield	8.58	29,426
Redwood Falls	7.87	29,088
Fridley	25.02	28,510
Hastings	16.10	28,471
Hermantown	14.07	27,955
Brainerd	14.30	27,763
Shorewood	8.24	27,720
Marshall	14.88	27,597
Chanhassen	22.31	27,542
Shakopee	21.88	27,379
Elk River	27.82	27,141
Bemidji	15.91	26,594
Willmar	23.91	26,510
Mahtomedi	8.62	26,489
Dayton	9.28	26,347
Virginia	15.93	26,320
East Grand Forks	12.48	26,061
Chisholm	7.99	25,554
Fergus Falls	24.34	25,343
Little Falls	15.67	25,299
Cloquet	20.14	25,175
Rosemount	24.14	25,123
Andover	35.58	24,972
Mendota Heights	13.51	24,795
Baxter	12.73	24,178
Montevideo	8.58	23,884
Cambridge	10.74	23,829
Alexandria	14.39	23,249
Ramsey	29.18	23,187
Detroit Lakes	12.41	23,122
Otsego	14.37	22,307
St. Michael	15.35	22,302
Morris	8.00	22,245
Hibbing	51.31	20,372
Lake Elmo	11.52	19,272
Big Lake	5.96	19,136
Hugo	15.97	18,933
Ham Lake	24.69	18,635
North Branch	21.84	18,389
East Bethel	26.92	17,201
Corcoran	15.50	16,214
Oak Grove	19.50	15,718
		$33,437

STATUS OF MUNICIPAL TRAFFIC COUNTING

The current Municipal State Aid Traffic Counting resolution reads:

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 or four years at the discretion of the city.

2. The cities in the outstate area may have their traffic counted and maps prepared by State forces every four years, or may elect to continue the present procedure of taking their own counts and have state forces prepare the maps.

3. Any city may count traffic with their own forces every two years at their discretion and expense, unless the municipality has made arrangements with the Mn/DOT district to do the count.

In 1998, cities were given the option of counting on a 2 or 4 year cycle. The following traffic counting schedules are in effect:

Metro District
Two year traffic counting schedule -counted in 1999 and updated in the needs in 2000

Andover
Anoka
Apple Valley
Blaine
Bloomington
Brooklyn Center
Brooklyn Park
Burnsville
Champlin
Chanhassen
Chaska
Coon Rapids
Corcoran
Cottage Grove
Dayton
Eagan
East Bethel
Eden Prairie
Farmington
Forest Lake
Ham Lake
Hastings
Hugo
Inver Grove Heights
Lake Elmo
Lakeville
Lino Lakes
Little Canada
Maple Grove
Mendota Heights
Minneapolis
Minnetonka
Mounds View
North Branch
Oakdale
Plymouth
Prior Lake
Ramsey
Rosemount
St. Anthony
St. Paul Park
Savage
Shakopee
South St. Paul
Shoreview
Vadnais Heights
Woodbury

Metro District
Four year traffic counting schedule - to be counted in 2001 and updated in the needs in 2002

Arden Hills
Columbia Heights
Crystal
Edina
Falcon Heights
Fridley
Golden Valley
Hopkins
Mahtomedi
Maplewood
Mound
New Brighton
New Hope
North St. Paul
Oak Grove
Orono
Richfield
Robbinsdale
Roseville
Shorewood
Spring Lake Park
Stillwater
St. Louis Park
St. Paul
West St. Paul
White Bear Lake

Outstate
Two year traffic counting schedule - to be counted in 1999 and updated in the needs in 2000

Northfield (begin in 2001)
St. Cloud
Sartell

Outstate
Two year traffic counting schedule - to be counted in 2000 and updated in the needs in 2001

Rochester

Outstate
Two year traffic counting schedule - to be counted in 2001 and updated in the needs in 2002

Brainerd

Outstate
Four year traffic counting schedule - to be counted in 1999 and updated in the needs in 2000

Bemidji
Cambridge
Chisholm
Elk River
Fergus Falls
Hermantown
Hibbing
Hutchinson
Litchfield
North Mankato
Owatonna
Red Wing
St. Peter
Sauk Rapids
Thief River Falls
Virginia
Waite Park
Waseca
Winona

Outstate
Four year traffic counting schedule - to be counted in 2000 and updated in the needs in 2001

Austin	International Falls	Otsego
Buffalo	Montevideo	
Detroit Lakes	Monticello	

Outstate
Four year traffic counting schedule - to be counted in 2001 and updated in the needs in 2002

Albert Lea	Faribault	Moorhead
Baxter	Grand Rapids	Morris
Crookston	Little Falls	New Ulm
East Grand Forks	Mankato	
Fairmont	Marshall	

Outstate
Four year traffic counting schedule - to be counted in 2002 and be updated in the needs in 2003

Alexandria	Stewartville	Worthington
Cloquet	Willmar	

Duluth counts 1/4 of the city each year.

Waconia has not yet set up a traffic counting schedule.

CURRENT RESOLUTIONS
OF THE
MUNICIPAL SCREENING BOARD

January, 2001

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.

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.

Screening Board Meeting Dates and Locations - June 1996

That the Screening Board Chairman, with the assistance of State Aid personnel, determine the dates and locations for that year's Screening Board meetings.

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.

Be it resolved that an amount of $487,286 (not to exceed 1/2 of 1% of the 1999 MSAS Apportionment sum of $97,457,150) shall be set aside from the 2000 Apportionment fund and be credited to the research account.

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.

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 an M.S.A.S. route earning "After the Fact" needs is removed from the M.S.A.S. 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, 1996

Be it resolved that beginning with calendar year 1996, the MSAS 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 dropped from the MSAS 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. 1998)

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 mileage of local streets, county roads and county road turnbacks.

Nov. 1965 – (Revised 1969, October 1993, October 1994, June 1996, October 1998)

However, the maximum mileage for State Aid designation may be exceeded to designate trunk highway turnbacks after July 1, 1965 and county highway turnbacks after May 11, 1994 subject to State Aid Operations Rules.

Nov. 1965 (Revised 1972, Oct. 1993, 1995, 1998)

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 local streets, county roads and county road turnbacks 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.

All mileage on the MSAS 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.

One Way Street Mileage - June 1983 (Revised Oct. 1984, Oct. 1993, June 1994, Oct. 1997)

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 as one-half of the mileage and allow one-half complete 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.

NEEDS COSTS

Roadway Item Unit Prices (Revised Annually)			
Right of Way (Needs Only)			$87,000 per Acre
Grading (Excavation)			$3.30 per Cu. Yd.
Base:			
	Class 5	Spec. #2211	$6.70 per Ton
	Bituminous	Spec. #2331	$25.50 per Ton
Surface:			
	Bituminous	Spec. #2331	$25.50 per Ton
	Bituminous	Spec. #2341	$26.50 per Ton
	Bituminous	Spec. #2361	$31.50 per Ton
Shoulders:			
	Gravel	Spec. #2221	$11.00 per Ton
Miscellaneous:			
	Storm Sewer Construction		$248,500 per Mile
	Storm Sewer Adjustment		$80,200 per Mile
	Special Drainage (rural segments only)		$35,000 per Mile
	Street Lighting (every segment)		$50,000 per Mile
	Curb & Gutter Construction		$7.70 per Lineal Foot
	Sidewalk Construction		$21.50 per Sq. Yd.
	Engineering		18%
Removal Items:			
	Curb & Gutter		$2.20 per Lineal Foot
	Sidewalk		$5.10 per Sq. Yd.
	Concrete Pavement		$5.00 per Sq. Yd.
	Tree Removal		$200.00 per Unit

Traffic Signal Needs Based On Projected Traffic (every segment)			
Projected Traffic	Percentage X	Unit Price =	Needs Per Mile
0 - 4,999	25%	$99,990	$24,998 per Mile
5,000 - 9,999	50%	$99,990	$49,995 per Mile
10,000 and Over	100%	$99,990	$99,990 per Mile

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:

Bridge Unit Costs	
Bridges 0 to 149 Feet long	$65.00 per Sq. Ft.
Bridges 150 to 499 Feet long	$62.50 per Sq. Ft.
Bridges 500 Feet and Over	$60.00 per Sq. Ft.

Railroad Over Highway	
One Track	$9,000 per Linear Foot
Each Additional Track	$7,500 per Linear Foot

"Non-existing" bridge costs - Revised October 1997
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, project development cost and construction engineering that is eligible for State Aid reimbursement for a 15-year period excluding all Federal or State grants. The addition of 18% project development costs shall be added to the present list of non-existing bridges.

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)	$110,000 per Unit
Signals and Gates(Multiple Track – high	$150,000 per Unit
Signs Only & (low speed)	$1,000 per Unit
Concrete Crossing Material Railroad Crossings (Per Track)	$900 per Linear Foot
Pavement Marking	$750 per 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.

Maintenance Needs Costs	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	$1,400 per Mile	$2,300 per Mile
Parking Lanes: Segment length times number of parking lanes times cost per mile	$1,400 per Mile	$1,400 per Mile
Median Strip: Segment length times cost per mile	$460 per Mile	$910 per Mile
Storm Sewer: Segment length times cost per mile	$460 per Mile	$460 per Mile
Traffic Signals: Number of traffic signals times cost per signal	$460 per Unit	$460 per Unit
Unlimited Segments: Normal M.S.A.S. Streets		
Minimum allowance per mile is determined by segment length times cost per mile.	$4,600 per Mile	$4,600 per Mile
Limited Segments: Combination Routes		
Minimum allowance per mile is determined by segment length times cost per mile.	$2,300 per Mile	$2,300 per Mile

NEEDS ADJUSTMENTS

Bond Adjustment - Oct. 1961 (Revised 1976, 1979, 1995)

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 (payment) period, and which annually reflects the net unamortized bonded debt (remaining principal payments due) shall be accomplished by adding said net unamortized (principal) amount to the computed money needs of the municipality.

For the purpose of this adjustment, the net unamortized bonded debt (remaining principal) shall be the total unamortized bonded indebtedness (deducted from the amount of projects applied against the bond) less the unexpended bond amount (less the amount of projects not encumbered) as of December 31st of the preceding year. The charges for selling the bond issue shall be deducted from the amount that projects are applied against.

"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."

Effective January 1, 1996
The money needs shall be annually reduced by 10% of the total bond issue amount. The computation of needs shall be started in the year that bond principal payments are made to the city.

Unencumbered Construction Fund Balance Adjustment - Oct. 1961 (Revised October 1991, 1996, October, 1999)

That for the determination of Apportionment Needs, the amount of the unencumbered construction fund balance as of December 31st of the current year shall be deducted from the 25-year total Needs of each individual municipality.

Funding Requests that have been received before **December 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, 2000)

The Right of Way needs shall be included in the total needs based on the unit price per acre 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

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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.

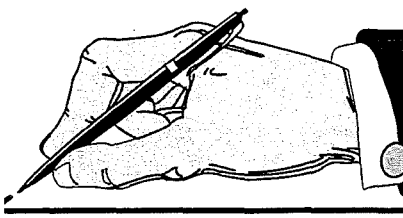
Traffic Counting - Sept. 1973 (Revised June 1987, 1997, 1999)

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 or four years at the discretion of the city.

2. The cities in the outstate area may have their traffic counted and maps prepared by State forces every four years, or may elect to continue the present procedure of taking their own counts and have state forces prepare the maps.

3. Any city may count traffic with their own forces every two years at their discretion and expense, unless the municipality has made arrangements with the Mn/DOT district to do the count.



NOTES and COMMENTS