

# **First Look at Streets and Thoroughfares for 2002 Bond Program**

Briefing to the City Council  
February 6, 2002

# Purpose

- Present possible options for streets and thoroughfare projects in the 2002 bond program
- Explore options for the Streets 2010 Program goals

# Needs Inventory

- The Streets and Thoroughfares grouping in the Capital Needs Inventory contains projects valued at approximately \$3 billion
- In prior bond programs, the Streets and Thoroughfares proposition has addressed numerous areas to improve the overall transportation system

## Needs Inventory Summary by Category Groups as of 1-31-02

Category Groups	Needs Inventory (Million)
Alley Improvements	\$172.81 M
Bridge Repair	\$7.51 M
Alternate Mode Transportation Trails	\$14.57 M
Sidewalk Improvements	\$0.72 M
Streetscape/Urban Design	\$7.56 M

Category Groups	Needs Inventory (Million)
Transportation System Lighting	\$7.74 M
Traffic Signal Improvements	\$53.10 M
Street Paving for Capacity Improvements – Street widening and/or intersection improvements	\$2,362.50 M
Street Improvements to Condition	\$363.10 M
<b>Total</b>	<b>\$2,989.61 M</b>

# Streets and Thoroughfares Categories

- **Alley Improvements**
  - Alley Petitions responds to citizen petitions to pave unpaved alleys and typically includes funding for all existing petitions and design funds for petitions not yet received
    - Needs Inventory - \$2,567,348
    - Staff recommendation to CMO for 2002 Bond Program - \$2,567,348
    - Addresses all citizen validated petitions

- **Alley Improvements (cont.)**
  - Alley Reconstruction replaces alleys that have exceeded their structural life expectancy
    - Needs Inventory - \$170,237,096
    - Staff recommendation to CMO for 2002 Bond Program - \$10,800,000
    - As recommended in the Alley Maintenance and Policy Briefing

- **Bridge Repair** addresses structural deficiencies
  - Needs Inventory - \$7,514,000
  - Staff recommendation to CMO for 2002 Bond Program - \$1,832,000
  - Addresses bridges that will require major repairs within three years to remain serviceable
  
- **Alternate Mode Transportation Trails** provides transportation opportunities for walking, bicycling, and other modes
  - Needs Inventory - \$ 14,570,000
  - Staff recommendation to CMO for 2002 Bond Program – To be determined

- **Sidewalk Improvements**

- Sidewalk Petitions responds to citizen petitions to pave sidewalks

- Needs Inventory - \$166,500
    - Staff recommendation to CMO for 2002 Bond Program - \$166,500
    - Addresses all citizen validated petitions

- Sidewalk Replacement provides for the City to share 50/50 the cost of replacing sidewalks with individual property owners

- Needs Inventory - demand driven
    - Staff recommendation to CMO for 2002 Bond program - \$1,500,000
    - Based on past citizen requests and program performance

- **Sidewalk Improvements (cont.)**
  - Sidewalk Safety responds to request for new sidewalks where no sidewalk exist from school administrators, teachers, parents and the general public
    - Needs Inventory - \$545,000
    - Staff recommendation to CMO for 2002 Bond Program – \$545,000
    - Addresses all current sidewalk safety requests
  
  - Barrier Free Ramps provides barrier free ramps as requested by the citizens
    - Needs inventory – demand driven
    - Staff recommendation to CMO for 2002 Bond Program – To be determined

- **Streetscape/Urban Design** provides enhancements to streets and sidewalks
  - Needs Inventory - \$7,562,000
  - Staff recommendation to CMO for 2002 Bond Program – To be determined
  
- **Transportation System Lighting**
  - Freeway Lighting installs lighting on freeways not illuminated
    - Needs Inventory - \$2,865,000
    - Staff recommendation to CMO for 2002 Bond Program – \$1,185,000
    - Provides for City's share (50%) of freeway lighting for freeways that are scheduled for reconstruction within 3 years

- **Transportation System Lighting (cont.)**
  - Street Lighting – CBD Roadway Lighting complete the 1981 CBD Roadway Lighting Master Plan
    - Needs Inventory - \$2,135,000
    - Staff recommendation to CMO for 2002 Bond Program - \$588,000
    - Provides for CBD lighting identified in the 1981 CBD Roadway Lighting Master Plan
  
  - Street Lighting – Enhanced Fixtures installs historic style lighting
    - Needs Inventory - \$2,731,800
    - Staff recommendation to CMO for 2002 Bond Program – To be determined

- **Traffic Signal Improvements**

- Intelligent Transportation Systems(ITS) provides roadside cameras, changeable signs for providing motorist information, and operations hardware
  - Needs Inventory - \$7,800,000
  - Staff recommendation to CMO for 2002 Bond Program - \$1,800,000
  - Provides for implementation of the ITS plan as approved by the City Council

- **Traffic Signal Improvements (cont.)**
  - Traffic Signal Upgrades - Citywide  
upgrades signals to correct structural or operational deficiencies outside of the CBD
    - Needs Inventory - \$36,240,000
    - Staff recommendation to CMO for 2002 Bond Program - \$2,560,000
    - Addresses structurally deficient traffic signal hardware citywide

- **Traffic Signal Improvements (cont.)**
  - Warranted Signals and School Flashers installs traffic signals at intersections and school flashers at new school zones
    - Needs Inventory – \$3,220,000
    - Staff recommendation to CMO for 2002 Bond Program - \$1,000,000
    - Provides for 6 warranted traffic signal installations and 15 new school zones with flasher

- **Street Paving for Capacity Improvements** primarily provides additional travel lanes to address increased traffic, but may also improve the overall satisfactory condition of city streets
  - Intergovernmental Partnership Projects provides transportation system capacity improvements while leveraging funding from other federal, state and local sources
    - Needs Inventory - \$65,620,000
    - Staff recommendation to CMO for 2002 Bond Program - \$49,125,092
    - Provides for \$29.06 million in local match for projects committed by Council and other agencies
    - Provides for \$4.25 million for projects endorsed by Council but not yet selected by other agencies
    - Provides for \$15.81 million in local match for projects committed by DART, TXDOT or others but not yet endorsed by Council

- **Street Paving for Capacity Improvements (cont.)**
  - Street Modification and Bottleneck Removal provides for capacity upgrades to street intersections
    - Needs Inventory - \$62,706,000
    - Staff recommendation to CMO for 2002 Bond Program – To be determined
    - Provides for modifications and capacity upgrades for intersections
  
  - Street Petitions responds to citizen petitions to upgrade streets to current standards and typically includes funding for all existing petitions and design funds for petitions not yet received
    - Needs Inventory - \$9,540,900
    - Staff recommendation to CMO for 2002 Bond Program - \$9,540,900
    - Addresses all citizen validated petitions

- **Street Paving for Capacity Improvements (cont.)**
  - Thoroughfares provides for capacity upgrades to streets to meet standards on the Thoroughfare Plan or CBD Streets and Vehicular Circulation Plan
    - Needs Inventory - \$ 2,224,626,710
    - Staff recommendation to CMO for 2002 Bond Program – \$4,800,000
    - Funds 2 thoroughfares designed in the 1998 Bond Program

- **Street Projects to Improve Condition**
  - Street Reconstruction Thoroughfares replaces thoroughfares that have exceeded their structural life expectancy
    - Needs Inventory - \$94,322,362
    - Staff recommendation to CMO for 2002 Bond Program - \$9,300,000
    - Minimum amount to maintain the current citywide level of approximately 80% satisfactory
  
  - Street Reconstruction Local Streets replaces local streets that have exceeded their structural life expectancy
    - Needs Inventory - \$85,025,000
    - Staff recommendation to CMO for 2002 Bond Program - \$3,600,000
    - Minimum amount to maintain the current citywide level of approximately 80% satisfactory

- **Street Projects to Improve Condition (cont)**
  - Street Resurfacing repairs street bases and replaces street surfaces to improve condition and extend life expectancy
    - Needs Inventory - \$183,754,690
    - Staff recommendation to CMO for 2002 Bond Program - \$31,500,000
    - Minimum amount to maintain the current citywide level of approximately 80% satisfactory

## Summary of Bond Program Categories as of 1-31-02

Category	Needs Inventory (Million)	Staff recommendation to the CMO for the 2002 Bond Program (Million)
Alley petitions	\$2.57 M	\$2.57 M
Alley reconstruction	\$170.24 M	\$10.80 M
Bridge Repair	\$7.51 M	\$1.83 M
Alternate Mode Transportation Trails	\$14.57 M	To be determined
Sidewalk Petition	\$0.17 M	\$0.17 M
Sidewalk Replacement	Demand driven	\$1.50 M
Sidewalk safety	\$0.55 M	\$0.55 M
Barrier free ramps	Demand driven	To be determined
Streetscape/Urban Design	\$7.56 M	To be determined
Freeway Lighting	\$2.87 M	\$1.19 M

## Summary of Bond Program Categories as of 1-31-02 (cont.)

Category	Needs Inventory (Million)	Staff recommendation to the CMO for the 2002 Bond Program (Million)
Street lighting- CBD	\$2.14 M	\$0.59 M
Street lighting- Enhanced fixtures	\$2.73 M	To be determined
Intelligent transportation system	\$7.80 M	\$1.80 M
Traffic Signal Upgrades- CBD	\$5.84 M	\$0.80 M
Traffic Signal Upgrades- Citywide	\$36.24 M	\$2.56 M
Warranted Signals & School Flashers	\$3.22 M	\$1.00 M
Intergovernmental Partnership projects	\$65.62 M	\$49.13 M
Street Modification & Bottleneck Removal	\$62.71 M	To be determined

## Summary of Bond Program Categories as of 1-31-02 (cont.)

Category	Needs Inventory (Million)	Staff recommendation to the CMO for the 2002 Bond Program (Million)
Street Petitions	\$9.54 M	\$9.54 M
Thoroughfares	\$2,224.63 M	\$4.80 M
<b>Subtotal</b>	<b>\$2,626.51 M</b>	<b>\$88.83 M</b>
Street Reconstruction Thoroughfares*	\$94.32 M	\$9.30 M
Street Reconstruction Local Streets*	\$85.03 M	\$3.60 M
Street Resurfacing*	\$183.75M	\$31.50M
<b>*2010 Subtotal</b>	<b>\$363.10 M</b>	<b>\$44.40 M</b>
<b>TOTAL</b>	<b>\$2,989.61 M</b>	<b>\$133.23 M</b>
<b>*Maintains 2010 Goal of approximately 80% satisfactory rating</b>		

## Streets 2010 Goal

- The original goal of reaching 75% satisfactory streets by 2010 has been exceeded
- Today close to 80% of the city streets are in satisfactory condition
- A new goal or confirmation of the existing goal is needed

- To maintain the approximately 80% satisfactory rating, the city must:
  - Continue the 1998 Capital Program for reconstruction (4.3 lane miles annually) and resurfacing (105 lane miles annually) at at cost of \$44.4 million over three years
  - Continue funding at the current annual level (adjusting for inflation) of General Fund Streets 2010 major treatment and preventive maintenance and routine repair and maintenance

## To Maintain Satisfactory Rating at About 80% City Wide

<b>8-Year Capital Cost</b>	<b>2002 Bond Program Total</b>	<b>Streets 2010 Annual Budget</b>	<b>Total LnMi Improved Annually</b>
<b>\$ 117.5</b>	<b>\$ 44.4</b>	<b>\$ 8.0</b>	<b>382</b>
<b>\$ in millions</b>			

- The satisfactory rating in all Council Districts could be increased to at least 90% by 2010?
  - To accomplish this, in current dollars, would require:
    - Reconstruction of 160 lane miles at a cost of \$160 million
    - Resurfacing of 1,530 lane miles at a cost of \$153 million
    - Restoration and rehabilitation of an additional 299 lane miles of asphalt streets at a cost \$18.7 million
    - Increasing the annual preventive maintenance and by \$2.1 million

## To Reach 90% in All Council Districts

<b>8-Year Capital Cost</b>	<b>2002 Bond Program Total</b>	<b>Streets 2010 Annual Budget</b>	<b>Total LnMi Improved Annually</b>
<b>\$ 313.2</b>	<b>\$ 117.5</b>	<b>\$ 12.5</b>	<b>689</b>
<b>\$ in millions</b>			

- The satisfactory rating citywide could be increased to at least 90% by 2010?
  - To accomplish this, in current dollars, would require:
    - Reconstruction of 57.4 lane miles at a cost of \$57.4 million
    - Resurfacing of 1,069 lane miles at a cost of \$106.9 million
    - Restoration and rehabilitation of an additional 356 lane miles of asphalt streets at a cost \$18.7 million
    - Increasing the annual preventive maintenance and by \$1.85 million

## To Reach 90% Satisfactory City Wide

<b>8-Year Capital Cost</b>	<b>2002 Bond Program Total</b>	<b>Streets 2010 Annual Budget</b>	<b>Total LnMi Improved Annually</b>
<b>\$ 164.3</b>	<b>\$ 61.6</b>	<b>\$ 12.2</b>	<b>585</b>
<b>\$ in millions</b>			

- It is possible to emphasize improving certain types of streets while holding the remaining streets at the current level
- For instance the satisfactory condition of non-residential streets could be increased to 90%.
  - To accomplish this, in current dollars, would require:
    - Reconstruction of 81.4 lane miles at a cost of \$81.4 million
    - Resurfacing of 1,250 lane miles at a cost of \$125 million

- Partial reconstruction, restoration and rehabilitation of an additional 202 lane miles at a cost \$12.3 million
- Increasing the annual preventive maintenance and by \$2.2 million

## To Reach 90% Satisfactory on Non-Residential Streets

<b>8-Year Capital Cost</b>	<b>2002 Bond Program Total</b>	<b>Streets 2010 Annual Budget</b>	<b>Total LnMi Improved Annually</b>
<b>\$ 206.4</b>	<b>\$ 77.4</b>	<b>\$ 12.2</b>	<b>818</b>
<b>\$ in millions</b>			

- To foster economic development, the satisfactory condition of selected commercial streets could be increased to 90% by 2010
- As an example, four commercial/industrial areas were selected.
  - Brookhollow/Stemmons/Industrial area
  - Turnpike Distribution Center
  - Luna Road/Walnut Hill
  - Westmoreland/Illinois Santa Fe Industrial area

- To increase the satisfactory rating of these streets to 90%, in current dollars, would require:
  - Reconstruction of 47.4 lane miles at a cost of \$47.4 million
  - Resurfacing of 974 lane miles at a cost of \$97.4 million
  - Partial reconstruction, restoration and rehabilitation of an additional 30 lane miles at a cost \$1.75 million
  - Increasing the annual preventive maintenance and by \$400,000

## Example of Reaching 90% Satisfactory in Selected Industrial Areas

<b>8-Year Capital Cost</b>	<b>2002 Bond Program Total</b>	<b>Streets 2010 Annual Budget</b>	<b>Total LnMi Improved Annually</b>
<b>\$ 144.8</b>	<b>\$ 54.3</b>	<b>\$ 8.8</b>	<b>474</b>
<b>\$ in millions</b>			

- The satisfactory level of CBD streets could be increased to 90% by 2010
  - To increase the satisfactory rating to 90%, in current dollars, would require:
    - Reconstruction of 34.6 lane miles at a cost of \$ 34.6 million
    - Resurfacing of 858 lane miles at a cost of \$ 85.8 million
    - Partial reconstruction, restoration and rehabilitation of an additional 1.36 lane miles at a cost \$71,000
    - Increasing the annual preventive maintenance budget by \$189,000

## To Reach 90% Satisfactory in CBD

<b>8-Year Capital Cost</b>	<b>2002 Bond Program Total</b>	<b>Streets 2010 Annual Budget</b>	<b>Total LnMi Improved Annually</b>
<b>\$ 120.4</b>	<b>\$ 45.2</b>	<b>\$ 8.2</b>	<b>412</b>
<b>\$ in millions</b>			

# Summary of Options

<b>Option</b>	<b>8-Year Capital Cost</b>	<b>2002 Bond Program Total</b>	<b>Streets 2010 Annual Budget</b>	<b>Total LnMi Improved Annually</b>
<b>Maintain current rating</b>	\$ 117.5	\$ 44.4	\$ 8.0	382
<b>90% in all Council Districts</b>	\$ 313.2	\$ 117.5	\$ 12.5	689
<b>90% city wide</b>	\$ 164.3	\$ 61.6	\$ 12.2	585
<b>90% for non residential</b>	\$ 206.4	\$ 77.4	\$ 12.6	818
<b>90% in industrial areas</b>	\$ 144.8	\$ 54.3	\$ 8.8	474
<b>90% in CBD</b>	\$ 120.4	\$ 45.2	\$ 8.2	412
<b>\$ in millions</b>				

## Future Directions

- Decide on a new Streets 2010 goal
- Decide on the desired mix of projects to be included in the Streets and Thoroughfares proposition in the 2002 Bond Program

# Appendix

- Staff recommendation to the CMO for the 2002 Bond Program
  - Alley Petitions
  - Sidewalk Petitions
  - Street Petitions
  - Thoroughfares
  - Bridge Repairs
  - Intergovernmental Partnership
  - Freeway Lighting
  - Intelligent Transportation Systems