

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
Total	\$2,989.61 M

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
Subtotal	\$2,626.51 M	\$88.83 M
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
*2010 Subtotal	\$363.10 M	\$44.40 M
TOTAL	\$2,989.61 M	\$133.23 M
*Maintains 2010 Goal of approximately 80% satisfactory rating		

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

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

- 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

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

- 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

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

- 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

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

- 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

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

- 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

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

Summary of Options

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

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