



City of Dallas

Five-Year Infrastructure Management Program (IMP) Update FY 2023- 2027

**Council Briefing
December 7, 2022**

Ali Hatefi, P.E., Director
Jennifer Nicewander, P.E., Assistant Director
Department of Public Works
City of Dallas

Presentation Overview



- Background
- Equity
- Streets
- Sidewalks
- Alleys
- Bridges
- Discussion/Questions



Five-Year IMP Background



- This is PBW's fifth annual Infrastructure Management Program (IMP)
- More details can be found on the Public Works website:
(<https://dallascityhall.com/departments/public-works>)
- Hard Copies will be delivered to council late December / early January



Five-Year IMP - Background

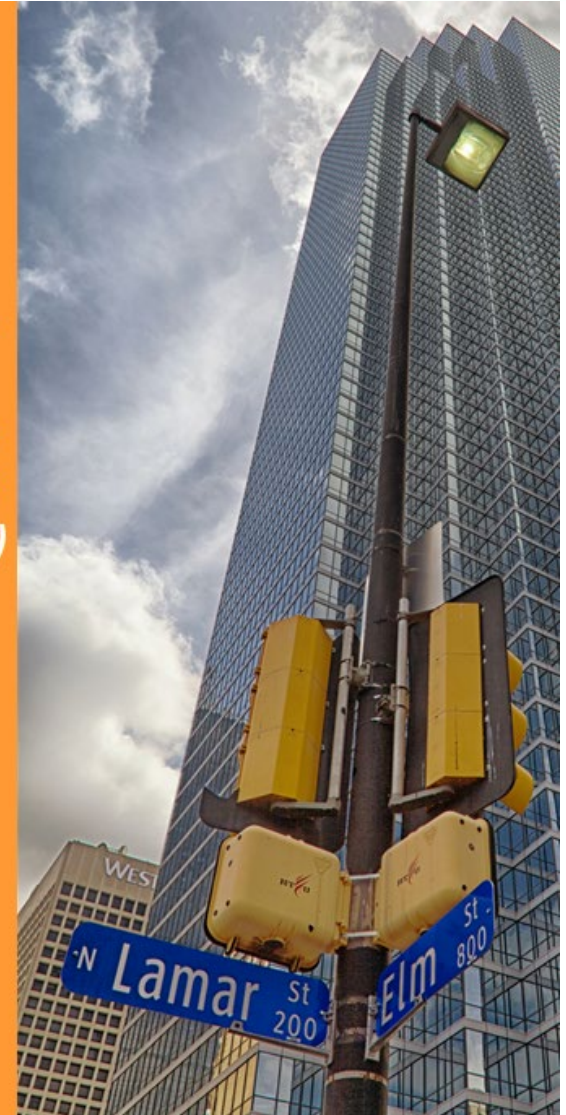


- The FY 2023 IMP includes \$158.6M for streets, sidewalks, alleys, and bridges

<i>Proposed Five-Year IMP Maintenance Program Budgets</i>						
<i>Program</i>	<i>FY23</i>	<i>FY24</i>	<i>FY25</i>	<i>FY26</i>	<i>FY27</i>	<i>Total</i>
Streets	\$144.6M	\$82.5M	\$152.5M	\$157.5M	\$157.5M	\$694.7M
Bridge	\$4.4M	\$4.4M	\$4.4M	\$4.4M	\$4.4M	\$22.0M
Sidewalks	\$6.3M	\$5.3M	\$5.3M	\$5.3M	\$5.3M	\$27.7M
Alleys - Unimproved	\$1.3M	\$1.3M	\$1.3M	\$1.3M	\$1.3M	\$6.5M
Alleys - Improved	\$2.0M	\$2.0M	\$2.0M	\$2.0M	\$2.0M	\$10.0M
Total	\$158.6M	\$95.6M	\$165.6M	\$170.6M	\$170.6M	\$760.9M

*City of Dallas
Five-Year
Infrastructure
Management
Program (IMP)*

FY 2022 - 26

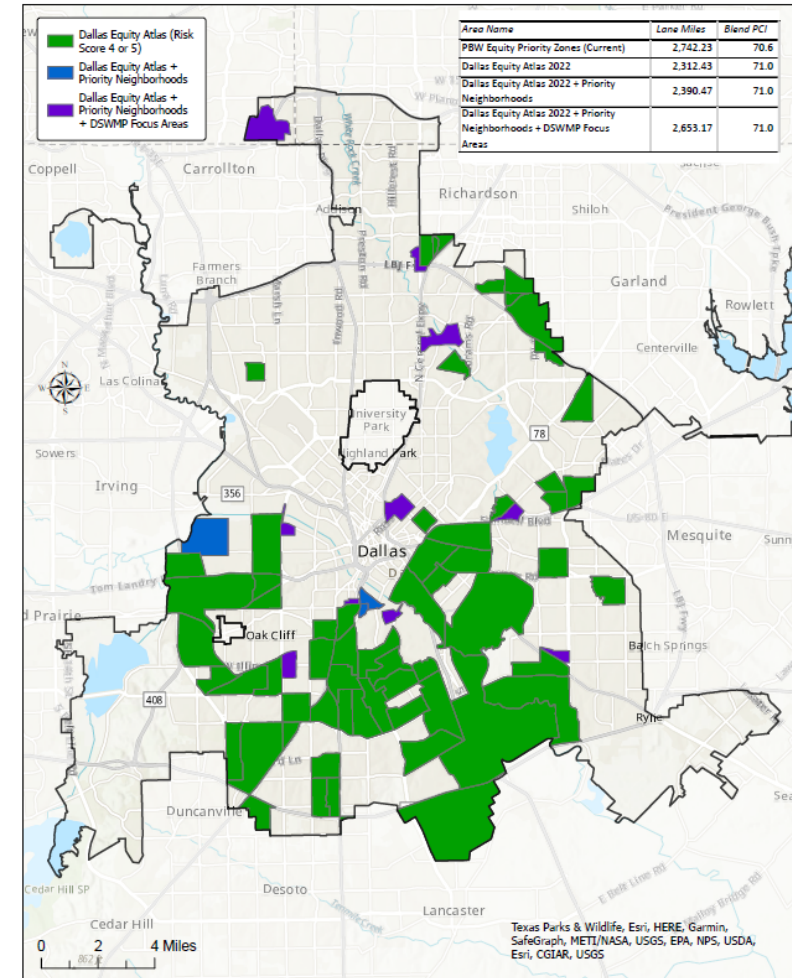


Five-Year IMP - Equity



- Equity/Underserved Funding
 - \$11.75M Equity Funding
 - Five Mile, Joppa, Pleasant Grove & West Dallas Area Infrastructure
 - 20% of the total Certificate of Obligation(CO) Funds; \$11.2M
 - IMP Underserved Areas \$6.8M
 - Total FY 23 Equity/Underserved Funding = \$29.75M

Proposed PBW Equity Priority Zones Based Upon Dallas Equity Atlas 2022



Moving to the Dallas Equity Atlas Map with Inclusions noted.



Five-Year IMP Background



City of Dallas PCI Ranges		
Rating	Ranking	PCI Range
A	Excellent	100-85
B	Good	70-84.9
C	Fair	55-69.9
D	Poor	40-54.9
E	Failed	0-39.9

- Each street segment in the City of Dallas has a Pavement Condition Index (PCI) Rating of “0-100”
- A street with a PCI of “100” would be a brand-new street and a street with a “0” PCI would be a completely failed street
- Current Model PCI = 62; this will be verified through the data assessment happening now



Five-Year IMP - Streets



- Model incorporated past data assessments to refine deterioration curves
- Includes Inflation on treatment costs (2.5% a year) but flat budget projections.
- Updated model to reflect current contract pricing
- Looking at various scenarios to optimize results with a focus on a long-term benefits.
 - Specific emphasis on total backlog, and reconstruction backlog



Five-Year IMP - Streets



- Data Collection / PCI Reset
 - Last data collection in May 2020
 - Next round currently on-going and will be completed in April 2023 that will result in new PCI for entire City
 - Incorporating new AI data processing method along with the traditional method for continuity
 - Will also help refine the deterioration curves for the paving model



Five-Year IMP - Streets



- Evaluated multiple Modeling Scenarios
 - \$112M - \$62M Maint/Preservation - \$50M Resurfacing
 - \$162M - \$62M Maint/Preservation - \$100M Resurfacing
 - \$162M - \$62M Maint/Preservation - \$50M Resurfacing / \$50M Reconstruction
 - \$212M - \$62M Maint/Preservation - \$75M Resurfacing / \$75M Reconstruction



Five-Year IMP - Streets



- Looked at Four Scenarios, results over next 10 years:

Scenario	Impact to PCI	Recon. Backlog Cost (\$948M in 2023)	Recon. Backlog Lane Miles (429 LM Back Log in 2023)	Resurf Backlog Cost (\$1.035B in 2023)	Resurf Backlog Lane Miles (2,389 LM Back Log in 2023)
\$112M (\$50M Resurf)	Slight Decline	\$1.806B	654 LM	\$1.540B	3,011
\$162M (\$100M Resurf)	Increases PCI	\$1.709B	619 LM	\$1.122B	2,243
\$162M (\$50M Resurf/\$50M Recon)	Maintains Current	\$1.301B	469 LM	\$1.363B	2,685
\$212M (\$75M Resurf/\$75M Recon)	Increases PCI	\$993M	358 LM	\$1.130B	2257



Five-Year IMP - Streets



- Current Funds Analysis
- Projected PCI over the next 10 years by council district
- This graph will be updated with new PCI data currently being collected
- Future models can look at what it will take to get all council districts to 65. much more complex

Table 12- Ten-Year IMP Pavement Condition Index Trend Projections

Council District	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
1	58	57	58	58	59	60	60	61	62	63
2	55	58	60	60	62	63	64	64	66	67
3	69	68	68	68	69	69	70	69	69	69
4	56	55	55	56	57	57	59	59	60	61
5	56	56	55	55	55	57	57	58	60	61
6	61	63	63	63	63	63	63	64	65	64
7	60	60	61	61	61	62	63	64	65	66
8	67	67	67	67	67	67	67	67	66	66
9	56	56	55	55	54	55	57	58	59	60
10	61	60	59	58	59	60	61	61	62	63
11	56	56	56	57	57	58	59	61	61	63
12	65	64	64	64	65	66	67	67	69	70
13	55	56	56	56	56	57	59	61	63	64
14	53	54	57	58	60	62	63	65	65	67



Five-Year IMP - Sidewalks



- Sidewalk Program
 - In June 2021, the Department of Public Works completed the City's first Sidewalk Master Plan (DSWMP)
 - A data-driven system was utilized to identify the most impactful projects to:
 - Increase accessibility for pedestrians,
 - Improve safety for all city residents,
 - Address sidewalk need in historically underserved communities



Five-Year IMP - Sidewalks



- Sidewalk Program
 - The DSWMP provides guidance for decision makers on budgeting, project selection, and implementation of planned projects included in the Five-Year IMP-Sidewalk Maintenance Program
 - The Dallas Sidewalk Master Plan's 12 Focus Areas identified \$30 million in priority projects across all 14 City Council Districts



Five-Year IMP - Sidewalks



- Sidewalk Program Five-Year Budget

<i>Proposed Five-Year IMP Sidewalk Maintenance Program Budgets</i>						
<i>Program</i>	<i>FY 23</i>	<i>FY 24</i>	<i>FY 25</i>	<i>FY 26</i>	<i>FY 27</i>	<i>Total</i>
Sidewalk – Community Development Block Grant (CDBG)	\$1.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$1.0M
Sidewalk – General Funds	\$0.3M	\$0.3M	\$0.3M	\$0.3M	\$0.3M	\$1.5M
Sidewalk – Certificate of Obligation (CO)	\$5.0M	\$5.0M	\$5.0M	\$5.0M	\$5.0M	\$25.0M
Funding Total	\$6.3M	\$5.3M	\$5.3M	\$5.3M	\$5.3M	\$27.5M

Sidewalk Miles	14	11	11	11	11	58
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Note: Greyed out boxes are subject to annual appropriations through the annual budget process.





Five-Year IMP - Sidewalks

Sidewalk Program Budget – Next 5-Years

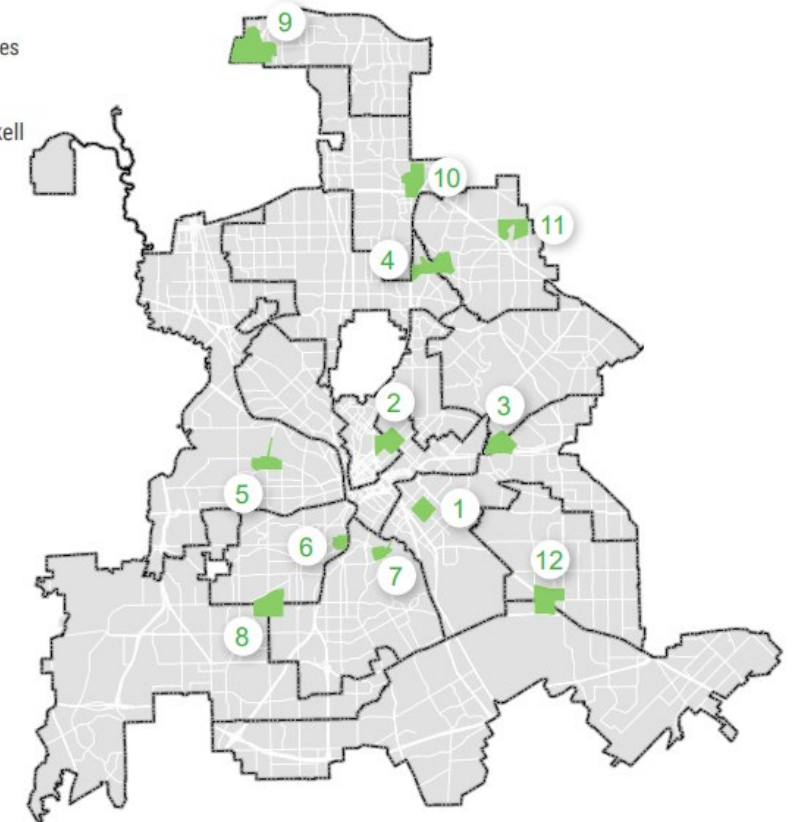
- \$27.5M Programmed
- 58 miles of sidewalk improvements
- expanding Dallas' sidewalk network

FY23

- 6.3M programmed,
- 14 miles of sidewalk improvements
- focused on priority projects included in the DSWMP's 12 Focus Areas

All Focus Area Locations

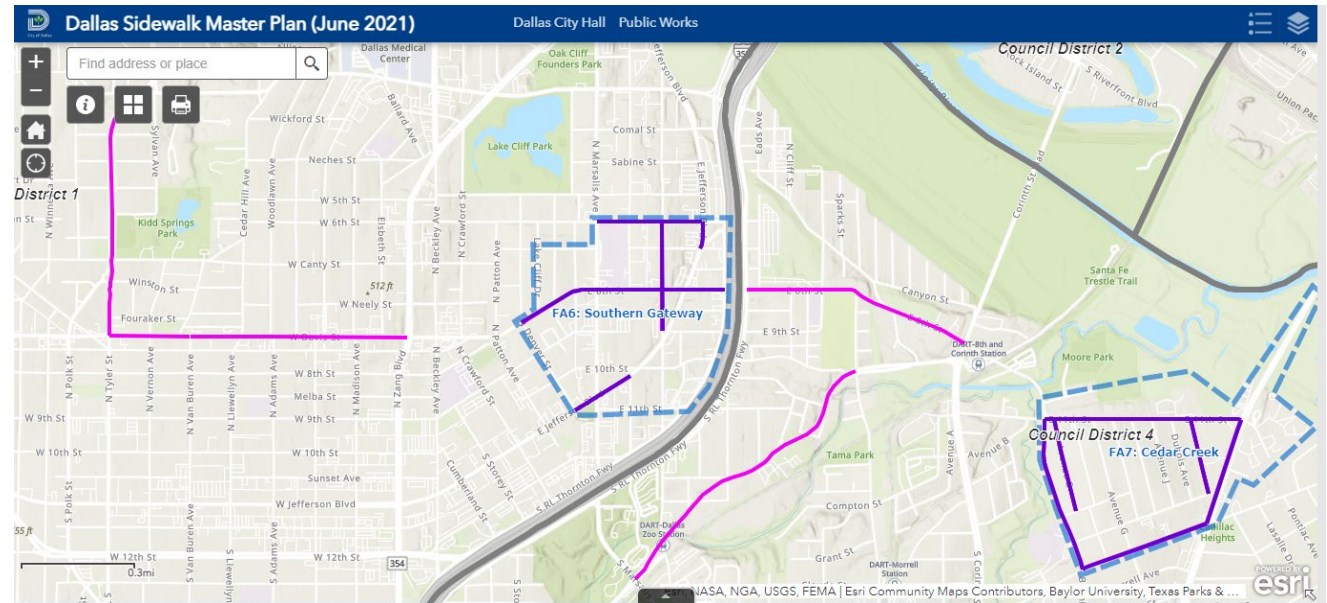
- # Focus Area Numbers
 - Focus Areas
 - Council District Boundaries
1. Martin Luther King, Jr.
 2. Renaissance Oaks & Haskell
 3. Tenison Park East
 4. Fair Oaks
 5. Hampton Crossing
 6. Southern Gateway
 7. Cedar Creek
 8. Hampton & Illinois
 9. Denton County Gateway
 10. Coit & 635
 11. Woodridge
 12. Elam Creek



Five-Year IMP - Sidewalks



- Sidewalk Program – DSWMP Application
 - Project tracking system and publicly available map showing progress of sidewalk improvements



Resources

- [Dallas Sidewalk Master Plan](#)
- [Dallas Sidewalk Master Plan Map](#)



Five-Year IMP - Alleys



- Improved Alleys

<i>Proposed Five-Year IMP Alley Maintenance Program Budgets</i>						
<i>Program</i>	<i>FY 22</i>	<i>FY 23</i>	<i>FY 24</i>	<i>FY 25</i>	<i>FY 26</i>	<i>Total</i>
Funding Needed	\$2.0M	\$2.0M	\$2.0M	\$2.0M	\$2.0M	\$10.0M
Miles	6.7	6.7	6.7	6.7	6.7	33.5



- Improved alleys are defined as alleys that have been constructed in concrete or asphalt
- The projects included in the IMP were prioritized and selected based upon pavement condition and Sanitation routes
- FY 23 work was competitively bid out into 4 separate contracts/packages
- PBW worked with OPS to reach out to MWBE firms
- Will be going to Council in January for approval

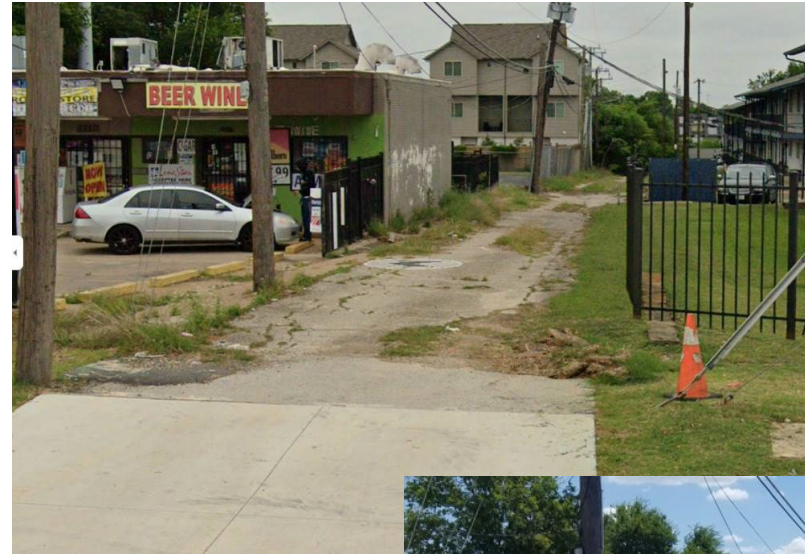




Five-Year IMP - Alleys

• Alleys- Unimproved

- The Unimproved Alley program began in FY 19; to date, the Street Operations team has completed 47.7 alley miles for 395 separate alley projects
- The IMP assumes a program budget of \$1.3M to complete an average of 7.7 miles of maintenance for unimproved alleys
- FY 22 was a pilot program to provide a thin layer of asphalt in the unimproved alleys. This improvement increased the overall cost of this maintenance item and in turn reduced the number of lane miles provided



<i>Proposed Five-Year IMP Alley Maintenance Program Budgets</i>						
<i>Program</i>	<i>FY 23</i>	<i>FY 24</i>	<i>FY 25</i>	<i>FY 26</i>	<i>FY 27</i>	<i>Total</i>
Funding	\$1.3M	\$1.3M	\$1.3M	\$1.3M	\$1.3M	\$6.5M
Miles	7.7 miles	7.7 miles	7.7 miles	7.7 miles	7.7 miles	38.5 miles

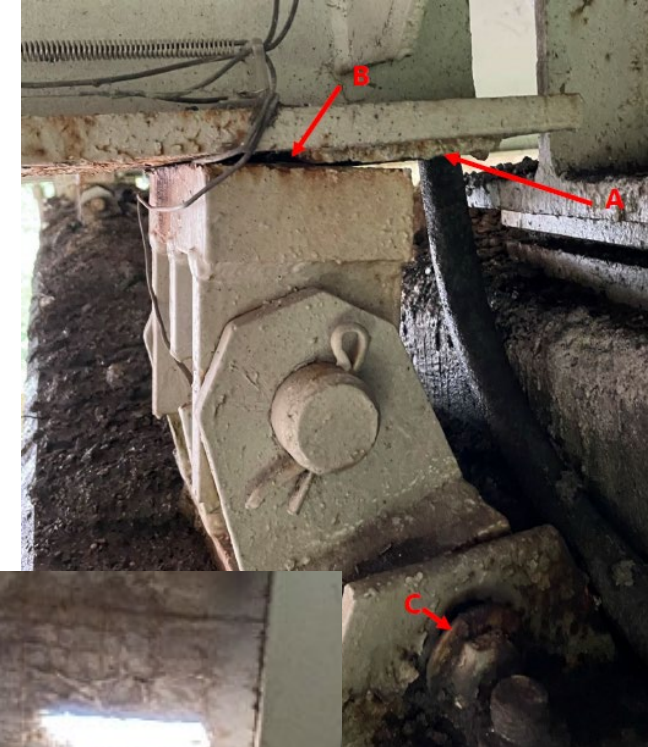


Five-Year IMP - Bridges



• Bridges

- Finalizing the development of a rolling 5-year maintenance program to address routine maintenance
- Current Estimated backlog \$31M of routine maintenance
- IN October awarded a construction contract for the bridge maintenance program



Example of emergency repairs on the Marsalis Bridge

Proposed Five-Year Bridge Maintenance Program Budgets

<i>Program</i>	<i>FY 23</i>	<i>FY 24</i>	<i>FY 25</i>	<i>FY 26</i>	<i>FY 27</i>	<i>Total</i>
Maintenance Program	\$3.4M	\$3.4M	\$3.4M	\$3.4M	\$3.4M	\$17.0M
Reserve for Emergency Repair/ Consultant	\$1.0M	\$1.0M	\$1.0M	\$1.0M	\$1.0M	\$5.0M
Bridges Impacted	20	20	20	20	20	80





Discussion/Questions





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