

Memorandum



CITY OF DALLAS

DATE April 5, 2019

TO Honorable Members of the Mobility Solutions, Infrastructure and Sustainability Committee

SUBJECT **Infrastructure Management Program**

On Monday, April 8, 2019, Robert Perez, Interim Director of the Department of Public Works, will brief the Mobility Solutions, Infrastructure and Sustainability Committee on the Five-Year Infrastructure Management Plan. The briefing materials are attached for your review.

Please feel free to contact me if you have any questions or concerns.

A handwritten signature in blue ink, appearing to read 'M. Al-Ghafry'.

Majed Al-Ghafry, P.E.
Assistant City Manager

[Attachment]

c: Honorable Mayor and Members of the City Council
T.C. Broadnax, City Manager
Chris Caso, City Attorney (Interim)
Carol A. Smith, City Auditor (Interim)
Biliera Johnson, City Secretary
Preston Robinson, Administrative Judge
Kimberly Bizzor Tolbert, Chief of Staff to the City Manager

Jon Fortune, Assistant City Manager
Joey Zapata, Assistant City Manager
Nadia Chandler Hardy, Assistant City Manager and Chief Resilience Officer
M. Elizabeth Reich, Chief Financial Officer
Laila Alequresh, Chief Innovation Officer
Directors and Assistant Directors

Infrastructure Management Program

**Mobility Solutions,
Infrastructure, & Sustainability
Committee**

April 8, 2019

**Robert M. Perez, Interim Director
Department of Public Works
City of Dallas**



Purpose of Briefing

- Provide an update of the FY 2019-2023 Infrastructure Management Program (IMP)
- Discuss development of the FY 2020-2024 IMP
 - Request feedback on street models and project selection variables
- Present plans for future Bond Programs

FY 2019-2023 IMP Update

FY 2019-2023 IMP Update

- City of Dallas Public Works Department maintains a 5-Year Infrastructure Management Program (IMP)
 - Lists the streets, alleys, and sidewalks programmed for maintenance outside of the Bond Program
 - Utilized for program/project planning, budgeting, and coordination
 - Provides pavement condition assessment data

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FY 2019-2023 IMP Update

- The IMP is developed on an annual basis based upon infrastructure assessments and funding availability

<i>Proposed Five-Year IMP Program Budgets</i>						
<i>Program</i>	<i>FY 19</i>	<i>FY 20</i>	<i>FY 21</i>	<i>FY 22</i>	<i>FY 23</i>	<i>Total</i>
Streets	\$60.2M	\$50.8M	\$50.5M	\$50.5M	\$50.5M	\$262.5M
*Sidewalks	\$2.2M	\$2.2M	\$2.2M	\$2.2M	\$2.2M	\$11.0M
*Alleys	\$1.6M	\$4.0M	\$4.0M	\$4.0M	\$4.0M	\$17.6M
Total	\$64.0M	\$57.0M	\$56.7M	\$56.7M	\$56.7M	\$291.1M

**Note: Grey-shaded fields indicate funds that will need to be identified during future budget deliberations*

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FY 2019-2023 IMP Update

- Street Maintenance Program
 - In-house work started in October 2018
 - City Council approved maintenance contract on November 14, 2018
 - Preservation contract scheduled for City Council consideration on April 10, 2019
 - Moving into peak construction season, on track to deliver 820 lane miles of maintenance in FY 2019

FY 2019-2023 IMP Update

- IMP Sidewalk Program
 - Projects programmed in Council Districts 9-14 started in December 2018
 - Projects programmed in Council Districts 1-8 scheduled to start in April 2019
- Sidewalks for Seniors
 - Projects started in Council Districts 1-8 in December 2018
 - Projects in Council Districts 9-14 will start in April 2019

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FY 2019-2023 IMP Update

- Unimproved Alley Program
 - Public Works advertised \$1.6M program but no bids received
 - Work started by in-house crews in March 2019 through use of overtime and oversight of recently re-assigned Sr. Program Manager
 - Also adding conduit to alleys to continue buildout of the City's information technology network

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FY 2019-2023 IMP Update

- The IMP, the project listings by Council District, and tracking of the completion of projects is posted on the Public Works' Pavement Management Website

Public Works Street Maintenance Projects - FY 18					
Project Street	From Block	To Block	Project Description	Council District	Treatment Type
10TH ST (E)	300	300	Dead-end to Patton Ave (S)	1	Preservation
10TH ST (E)	600	900	Ewing Ave (S) to R L Thornton Serv W (S)	1	Maintenance
10TH ST (W)	2300	2300	Hollywood Ave to Tennant St (S)	1	Preservation
12TH ST (W)	1500	1600	Windomere Ave (S) to Rosemont Ave (S)	1	Maintenance
12TH ST (W)	2500	2600	Franklin St (S) to Superior St	1	Maintenance
15TH ST (W)	200	300	Zara Blvd (N) to Bishop Ave (N)	1	Preservation
				1	Maintenance
				1	Preservation
				1	Preservation
				1	Maintenance
				1	Maintenance
				1	Preservation
				1	Maintenance
				1	Maintenance
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				1	Maintenance
				1	Preservation
				1	Preservation
				1	Preservation
				1	Maintenance
				1	Preservation
				1	Maintenance
				1	Preservation
				1	Maintenance

<https://dallascityhall.com/departments/public-works/Pages/pavement-management.aspx>

FY 2019-2023 IMP Update

- Pavement Management Website Enhancements
 - Map of IMP Projects
 - Map of 2017 Bond Program
 - Map of Pavement Conditions
 - Map of Previous Bond Programs

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Public Works

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PAVEMENT MANAGEMENT

FAQS

STREET MAINTENANCE

MOWMENTUM PROGRAM

FY 19 Maintenance Work
Link to Map (showing the FY 19 Maintenance Program (non-Bond Projects))

2017 Bond Program
Link to the 2017 Bond Program map page

Pavement Condition Map
Link to the Pavement Condition Map

Capital Improvement Program
Link to previous bond projects still active.

Pavement Management

Robert Perez, Assistant Director: 214-948-4290

Pavement Management / Street Condition/Assessment

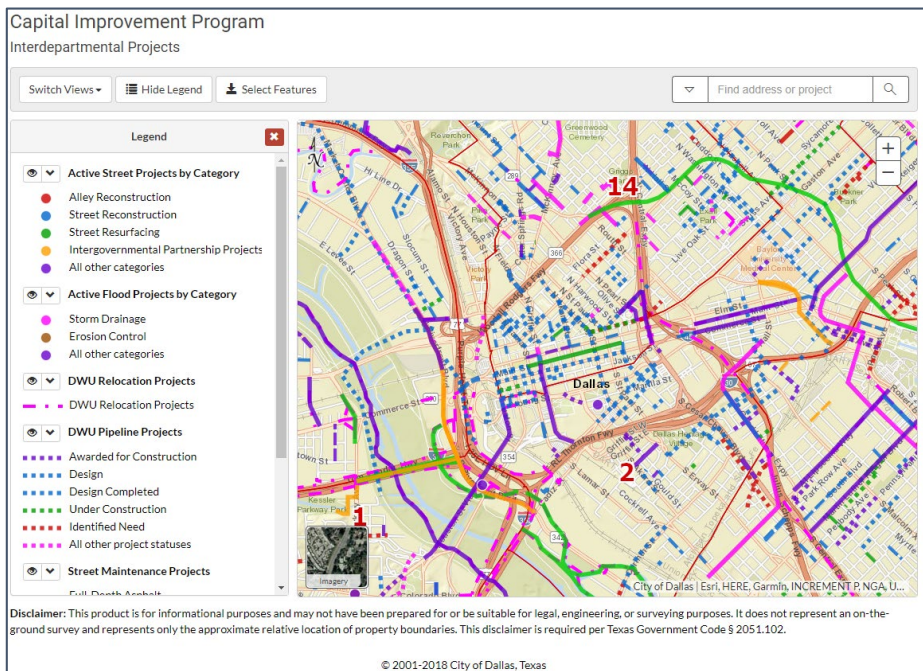
Jennifer Nicewander, P.E.
214-948-4686

Street Condition Inspection and Inventory Information

For a PDF of the Infrastructure Management Program go to:

FY 2019-2023 IMP Update

- Interdepartmental Project Map (Working with CIS to publish)



- Exploring online survey for the public to comment on construction projects upon project completion

FY 2020-2024 IMP Development

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FY 2020-2024 IMP Development

- Proposed FY 2020-2024 IMP to be published June 2019 and will be based on the following budget assumptions:

<i>Proposed Five-Year IMP Program Budgets</i>						
<i>Program</i>	<i>FY 20</i>	<i>FY 21</i>	<i>FY 22</i>	<i>FY 23</i>	<i>FY 23</i>	<i>Total</i>
Streets	\$50.8M	\$50.5M	\$50.5M	\$50.5M	\$50.5M	\$252.8M
*Sidewalks	\$2.2M	\$2.2M	\$2.2M	\$2.2M	\$2.2M	\$11.0M
*Alleys	\$4.0M	\$4.0M	\$4.0M	\$4.0M	\$4.0M	\$20.0M
Total	\$57.0M	\$56.7M	\$56.7M	\$56.7M	\$56.7M	\$283.8M

**Note: Grey-shaded fields indicate funds that will need to be identified during future budget deliberations*



FY 2020-2024 IMP Development

- Street Maintenance Program
 - Based on current Preservation Program contract, \$1.9M will be needed to deliver second year of contract (FY 2020); alternative would be to reduce IMP by 80 lane miles of preservation
 - Staff preparing multi-year maintenance program advertisement to secure long-term project costs (also for last two years of 2017 Bond resurfacing projects)

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FY 2020-2024 IMP Development

- Street Maintenance Program – Pavement Condition Index (PCI) Ratings
 - All street segments issued a PCI Rating
 - “0” = failed street, “100” = brand new street
 - Average PCI of Dallas’ streets is 65.4 for FY 18 and 65.1 for 2019

<i>City of Dallas PCI Ranges</i>	
Letter	PCI Range
A	100-85
B	70-84.9
C	55-69.9
D	40-54.9
E	0-39.9

FY 2020-2024 IMP Development

- Street Maintenance Program – Pavement Condition Index (PCI) Ratings
 - District PCI Ratings
 - Takes into account all work (bond and maintenance) completed in FY 2018

<i>Street Lane Miles and Citywide and District Ratings - FY18</i>			
City	Lane Miles	Percent Satisfaction	Average PCI
1	751	69%	61.0
2	938	71%	61.8
3	992	88%	71.3
4	922	72%	62.2
5	709	73%	63.5
6	1,071	81%	66.4
7	874	77%	66.0
8	877	80%	70.0
9	909	77%	63.9
10	734	86%	69.0
11	622	82%	66.3
12	626	90%	72.4
13	1,010	77%	64.3
14	740	60%	58.2
Total	11,775	77%	65.4

FY 2020-2024 IMP Development

- PCI range examples
 - Asphalt streets



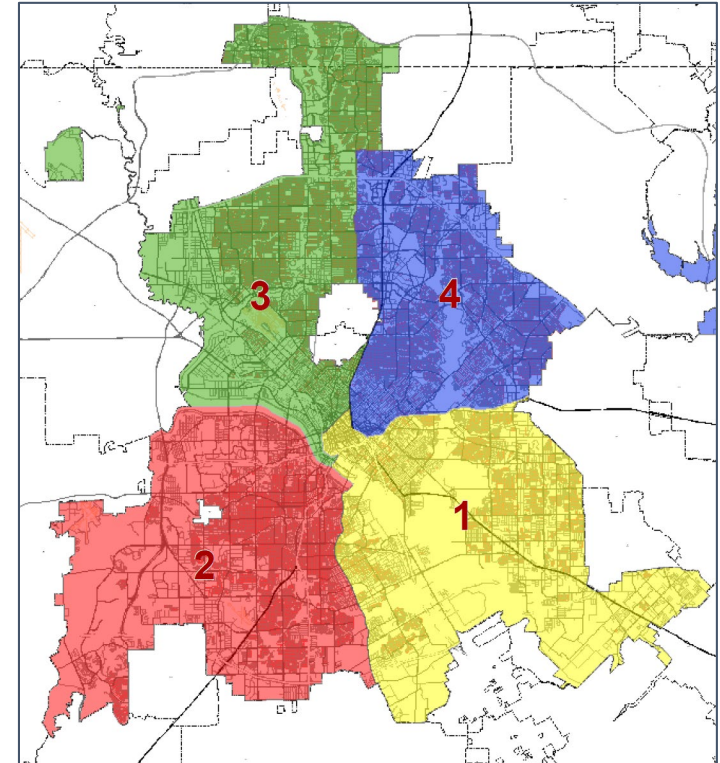
FY 2020-2024 IMP Development

- PCI range examples
 - Concrete streets



FY 2020-2024 IMP Development

- Street Maintenance Program – Pavement Condition Index (PCI) Ratings
 - PCI's established citywide in FY 2017
 - PCI Ratings verified ¼ of the City each fiscal year; counter-clockwise
 - Consultant completed Area 1 in FY 2019



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FY 2020-2024 IMP Development

- Data Integrity – Internal Checks
 - Annually, every street on proposed for the Maintenance plan is inspected by Public Works staff to confirm treatment type being proposed is acceptable for the next years plan (done in Winter when construction slows)
 - Streets that are rejected are sent to the consultant to review and provide model adjustments

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FY 2020-2024 IMP Development

- Street Maintenance Program
 - Current street maintenance project selection model is based only on PCI data
 - Moving forward, modeling will include variables such as:
 - Traffic counts
 - Prioritization of arterial/collectors vs. residential streets
 - Top 50 most-frequent pothole repair areas

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FY 2020-2024 IMP Development

- Future Efforts
 - RFQ for Pavement Management Services to advertise in April/May
 - Will include:
 - Identifying best model for COD needs
 - QA/QC alley collection methodology
 - Data Integrity Checks

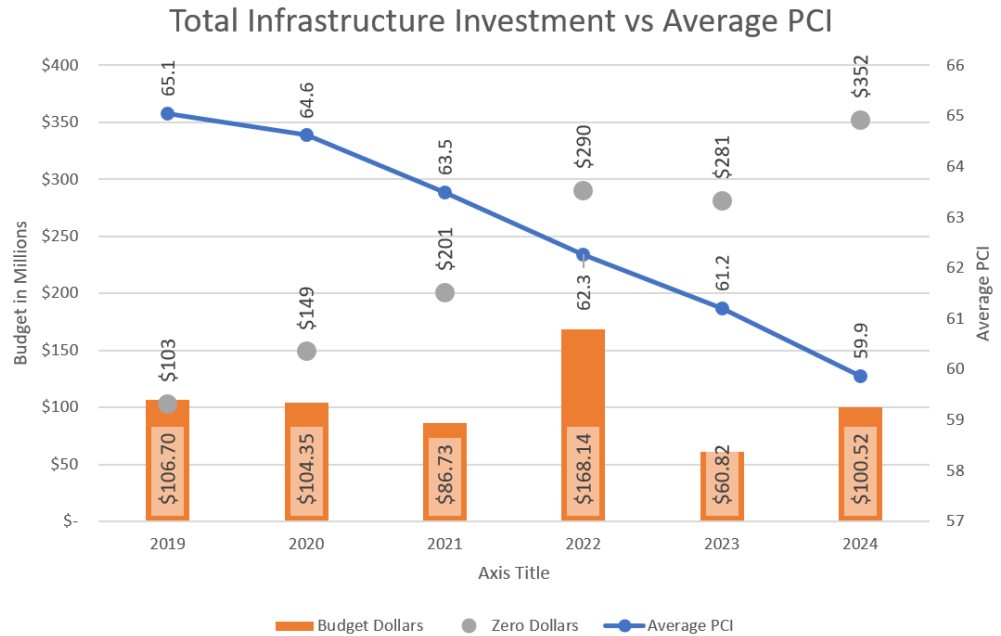
FY 2020-2024 IMP Development

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FY 2020-2024 IMP Development

- Street Maintenance Program
 - Based on current budgets, the City's Average PCI will continue to drop approximately 1 point over the next five years



FY 2020-2024 IMP Development

- Sidewalk Maintenance Program
 - Program proposes 7–20 projects a year, depending on budget capacity (\$2.2M/year; \$11M over five years)
 - Projects focus on smaller-scale projects to fill-in gaps of missing sidewalk and broken panels
 - Projects identified by former City Safety Advisory Committee, the Needs Inventory, and sidewalk condition

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FY 2020-2024 IMP Development

- Unimproved Alley Maintenance Program
 - Program proposes 100 projects per year (\$2M/year; \$10M over five years)
 - Continues FY 2019 Pilot Program improvements in gravel alleys
- Improved Alley Maintenance Program
 - Program accounts for 80-100 alleys per year (\$2M/year; \$10M over five years)
 - For alleys needing repairs for 25% or less of the alley

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Preparation for Future Bond Programs

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Preparation for Future Bond Program

- Staff continues receiving requests for projects for the next bond; estimated in 2023
- Requests are for streets, alleys, and sidewalks
- As requests are received, staff evaluates the current condition of infrastructure, if the need is greater than maintenance, the project is added to the Needs Inventory
- The Needs Inventory is the source for the first call of projects

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Preparation for Future Bond Program

- The Needs Inventory will only have:
 - Street resurfacing or reconstruction projects
 - Alley reconstruction projects
 - Sidewalk construction/reconstruction projects
- Staff is collecting data on the number of requests for projects within the Needs Inventory; this data will be available leading up to the next call for Bond projects

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Infrastructure Management Program

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