# ROADWAY INFRASTRUCTURE NEEDS

July 16, 2019



## Background

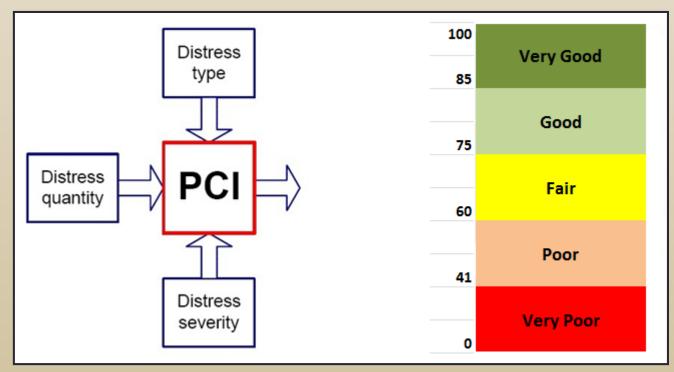
- City maintains approximately 68 miles of arterial roads and 226 miles of local roads (residential/industrial roads)
- Typical design 'life' of a roadway surface is 20-25 years.
  - Regular maintenance (e.g. slurry seal & overlay) can continuously extend the pavement 'life', thereby reducing the need for significant rehabilitation.
- Public Works prepares and updates the Pavement Management Program (PMP) every two years.
  - Update is required by OCTA to remain eligible for Measure M2 funds.
  - Latest update was completed in May 2018, next update is due May 2020.

## Pavement Management Program

- PMP includes inspections of the arterial roads every two years and the local roads every six years.
- The program determines the existing roadway condition and assigns a Pavement Conditions Index (PCI) rating from 0-100 for each roadway segment.
- The PMP objective is to:
  - Determine existing pavement conditions
  - Develop pavement rehabilitation strategies
  - Forecast future pavement rehabilitation projects
    - Type of repair, locations and scope
  - Forecast budget needs

#### Pavement Condition Index

- The PCI is a function of overall condition of the pavement.
   Condition problems include potholes, cracking, failures, rutting, etc.
- Fewer problems = higher PCI rating
  - 0=very poor, 100=very good



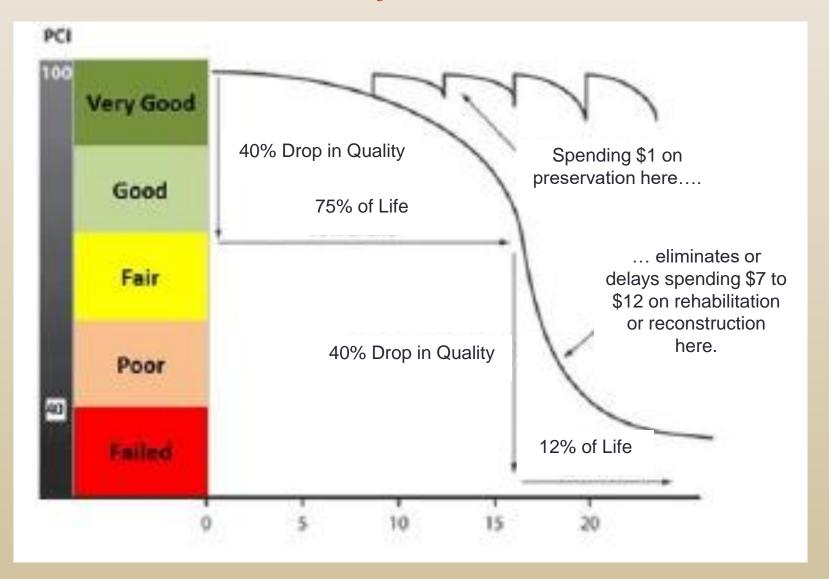
#### Factors That Effect Pavement Life

- Delay of Preventive Maintenance
- Traffic Volume and Loading
- Age of Pavement
- Type of Pavement (PCC vs AC)
- Soil and Base Material Under Pavement
- Storm Water Infiltration into Subgrade
- Utility Trench Cuts





## Pavement Life Cycle Costs



## PCI Ratings

#### PCI 86-100 - Very Good

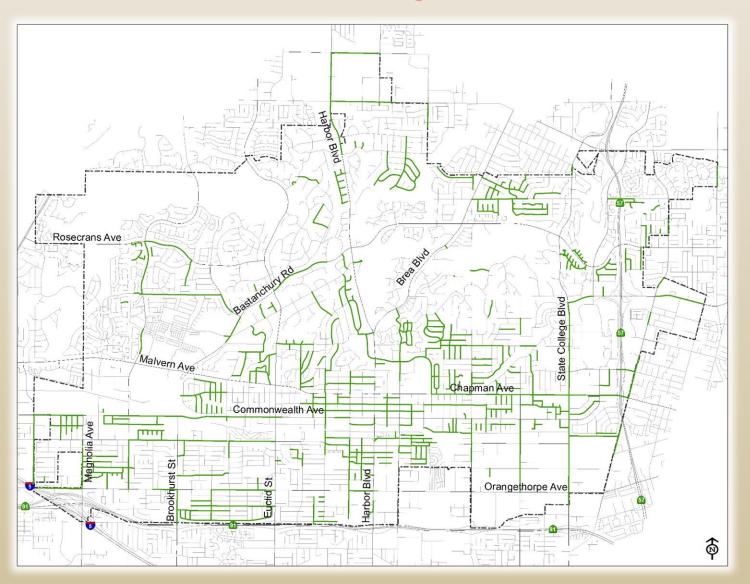
- Typical rehabilitation Slurry Seal application after 10 years
- 28% of all streets (82 mi)
- 33% of arterial roads (22 mi)
- 27% of local roads (60 mi)



State College Boulevard (north of Commonwealth Avenue)

PCI = 100

## Streets with PCI Rating 86-100 (V. Good)



## PCI Ratings

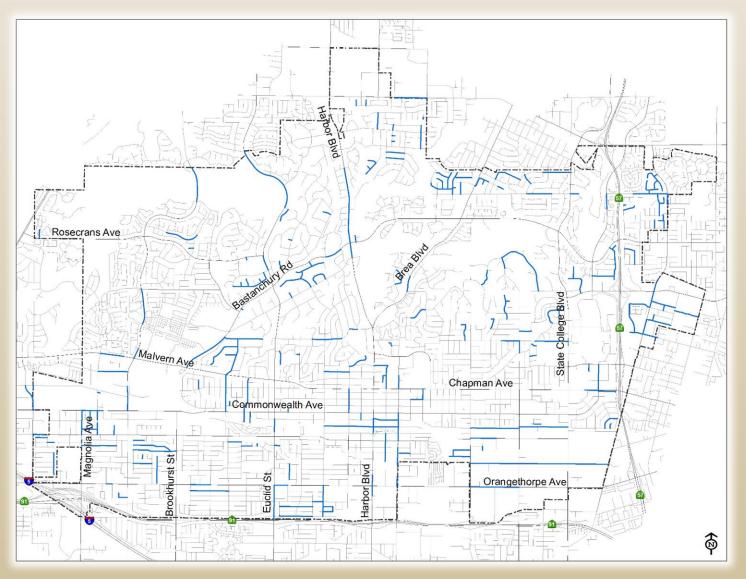
#### PCI 75-85 - Good

- Typical rehabilitation Crack Seal and Slurry Seal
- 13% of all streets (39 mi)
- 14% of arterial roads (9 miles)
- 13% of local roads (30 miles)



Highland Avenue (north of Commonwealth Avenue) PCI = 80

## Streets with PCI Rating 75-85 (Good)



## PCI Ratings

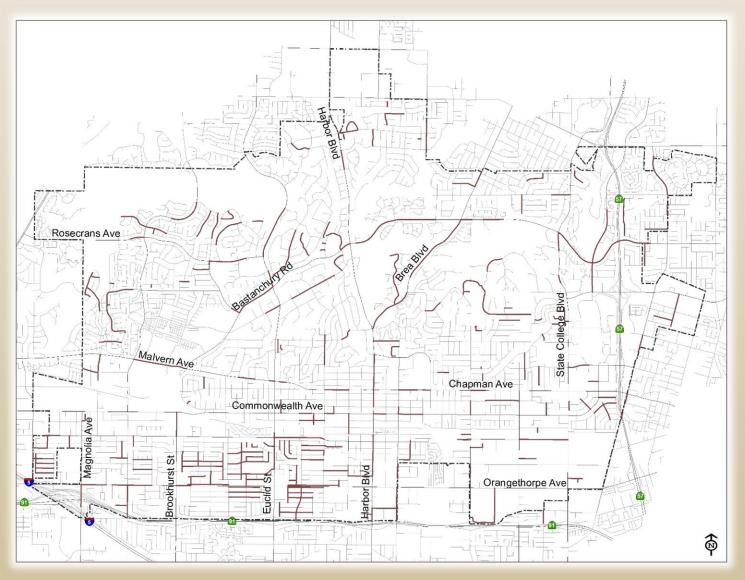
#### PCI 60-74 - Fair

- Typical rehabilitation Thin Overlay/Spot Repairs
- 17% of all streets (48 mi)
- 23% of arterial roads (16 miles)
- 14% of local roads (32 miles)



Harbor Boulevard (north of Chapman Ave) PCI = 71

## Streets with PCI Rating 60-74 (Fair)



## **PCI** Ratings

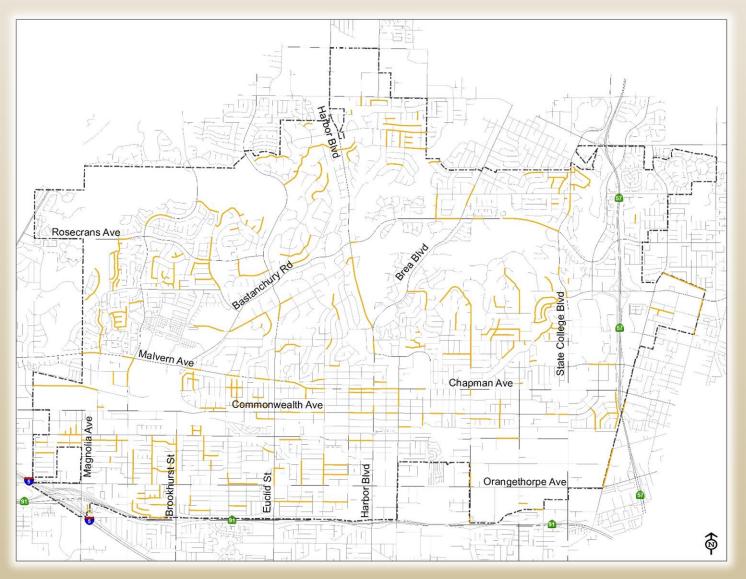
#### PCI 41-59 - Poor

- Typical rehabilitation = Thick Overlay
- 15% of all streets (45 mi)
- 14% of arterial roads (10 miles)
- 16% of local roads (35 miles)



Chapman Avenue (west of Harbor Boulevard) PCI = 46

## Streets with PCI Rating 41-59 (Poor)



## PCI Ratings

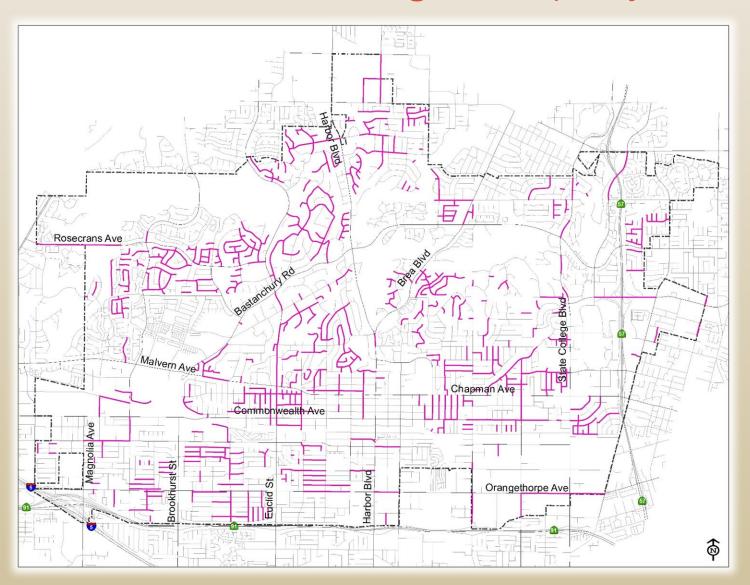
#### PCI 0-40 - Very Poor

- Typical rehabilitation = Full Reconstruction / Remove & Replace
- 27% of all streets (80 mi)
- 16% of arterial roads (10 miles)
- 30% of local roads (70 miles)



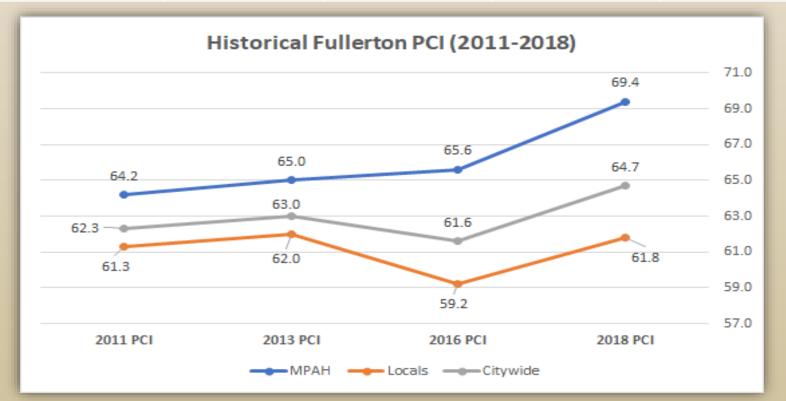
Victoria Drive (west of Dorothy Lane) PCI = 13

## Streets with PCI Rating 0-40 (Very Poor)



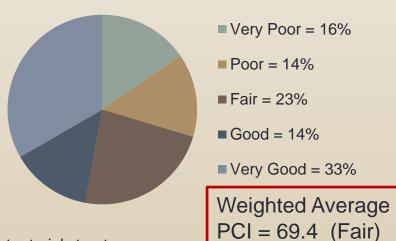
### Historical PCI (where we were)

Item	2011 PCI	2013 PCI	2016 PCI	2018 PCI (Current)
Arterial Streets	64.2	65.0	65.6	69.4
Local Streets	61.3	62.0	59.2	61.8
Citywide	62.3	63.0	61.6	64.7

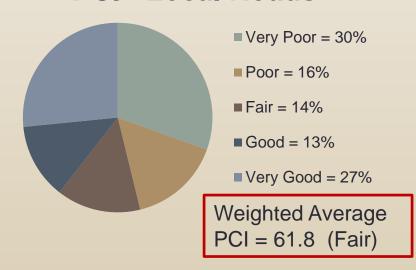


## Current PCI Rating (where we are)

#### **PCI - Arterial Roads**

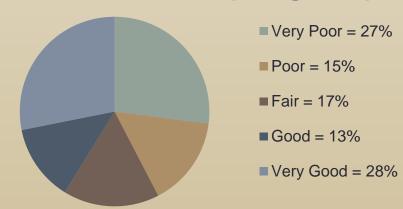


#### **PCI - Local Roads**



\*Significant arterial street improvements in 2017 were funded by private development and other agencies (OCSD, OCTA, cities).

#### PCI - All Roads (Weighted)



Overall Weighted City Average PCI = 64.7 (Fair)

## Street Improvements vs Maintenance

#### **Street Improvements**

Design and Construction of Major Improvements

- Street Slurry Sealing
- Street Rehabilitation and Reconstruction
- Curb Ramp and Curb & Gutter Reconstruction
- Center Median Construction or Modifications





#### **Street Maintenance**

Operational level repairs

- Signing and Striping Preservation
- Potholes
- Grinding of sidewalk (trip hazards)
- Street Light Repair

## Street Funding Sources

#### Allowable Funding Sources and Uses:

Measure M2 Roadway Maintenance & Improvements

SB-1 (new gas tax) Roadway Maintenance & Improvements

State and Federal Gas Tax Roadway Maintenance & Improvements

\* General Fund Allowable when designated by Council

\* Grants Limited to uses as allowed by Grant

\* One-Time Revenues Sale of City land or miscellaneous items

#### **Funding Comments**

Other City funds (Sewer Enterprise, Park Dwelling, Water Fund, Airport Fund, etc....) CANNOT be used for street improvements

<sup>\*</sup> Not typically available so not considered in ongoing planning efforts. Incorporated into plan when obtained.

General Fund - Annual Revenues - \$97M

Property Tax = \$45.2M

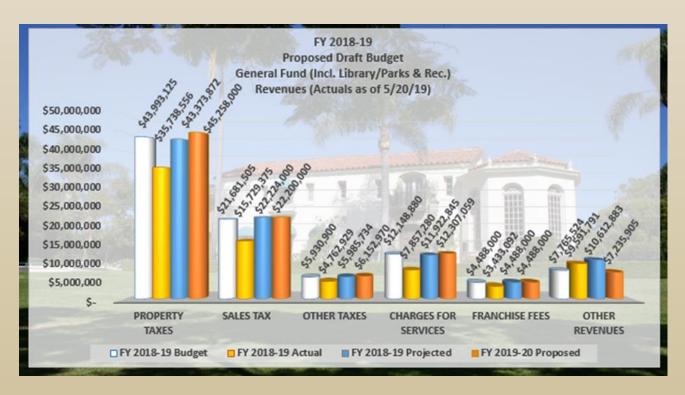
Sales Tax = \$22.2M

Charges for Services = \$12M

Other Taxes (TOT, Business Reg) = \$6.1M

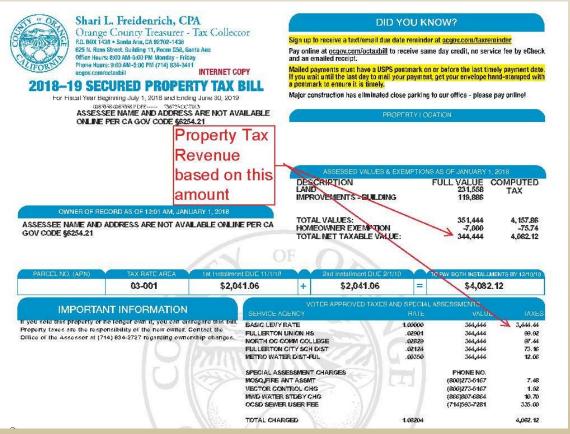
Franchise Fees = \$4.5M

Other Revenues = \$7.2M



#### General Fund

- Can be used for any general purpose
- Property Tax Revenue makes up 46% of the General Fund

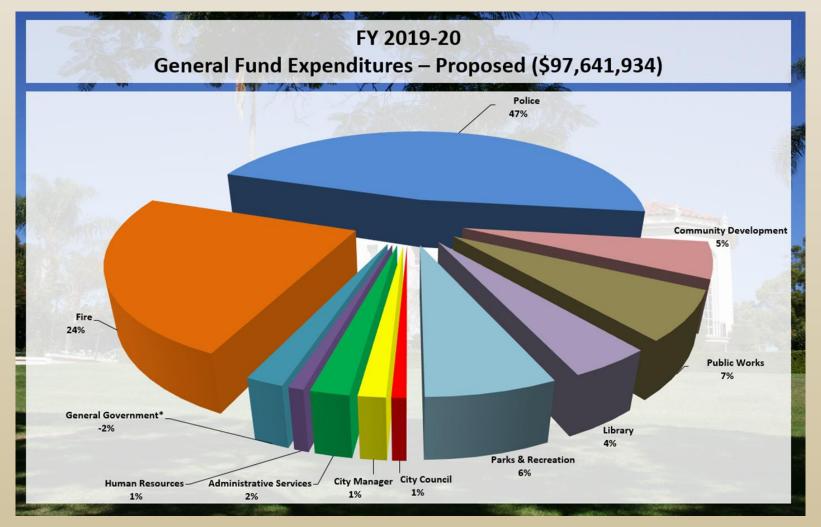


#### General Fund - Property Tax Revenue

- City receives 15.6 cents for every property tax dollar
- School bonds, MWD are excluded

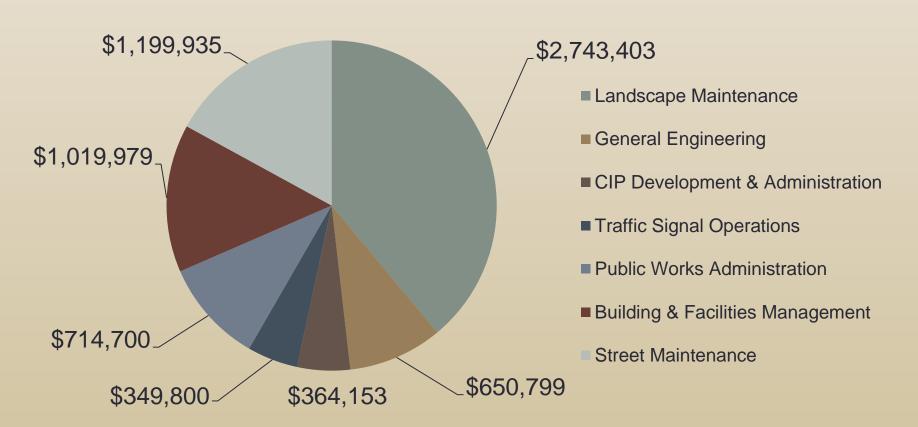
TO COUNTY Paid to County for Assessed Property Value	TO FULLERTON  15.6¢ per dollar paid in prior column Police, Fire, Parks, Recreation, Library, Building, Planning, etc.
\$400	\$62.40 yr / \$5.20 mo
\$1,000	\$156 yr / \$13 mo
\$2,000	\$312 yr / \$26 mo
\$3,000	\$468 yr / \$39 mo
\$5,000	\$780 yr/ \$65 mo
\$7,000	\$1,092 yr / \$91 mo
\$9,000	\$1,404 yr / \$117 mo

General Fund – Typical Uses



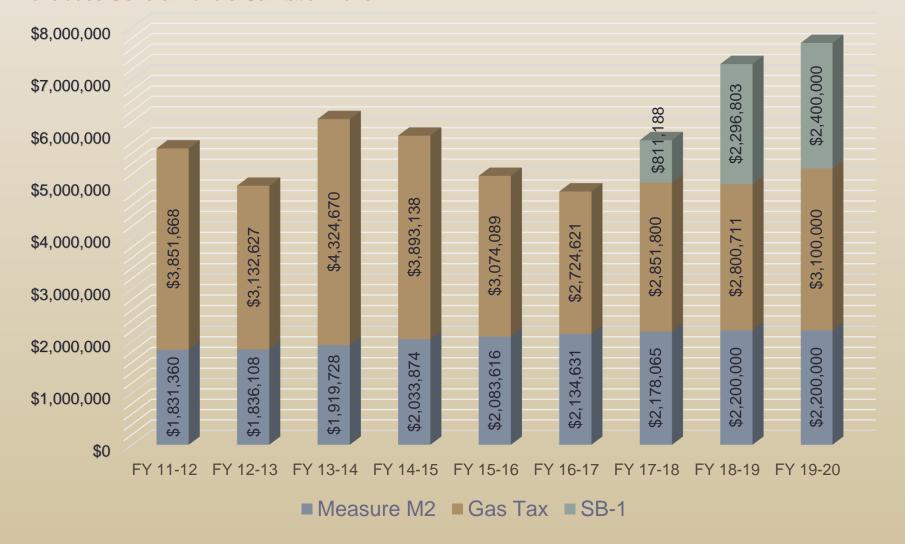
General Fund – Public Works Breakdown

#### **Public Works General Fund Allocations**



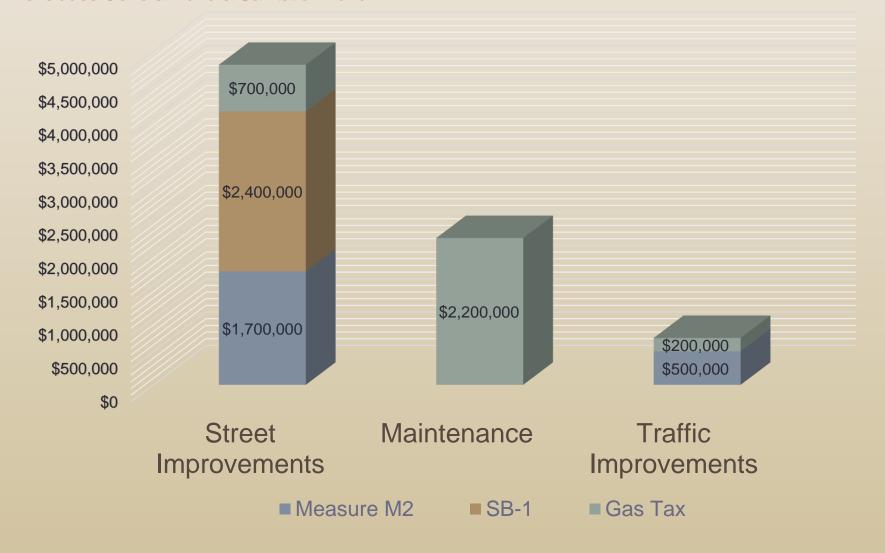
# Historical Street Funding (Outside Sources) Improvements and Maintenance

\*excludes General Fund & Sanitation Fund



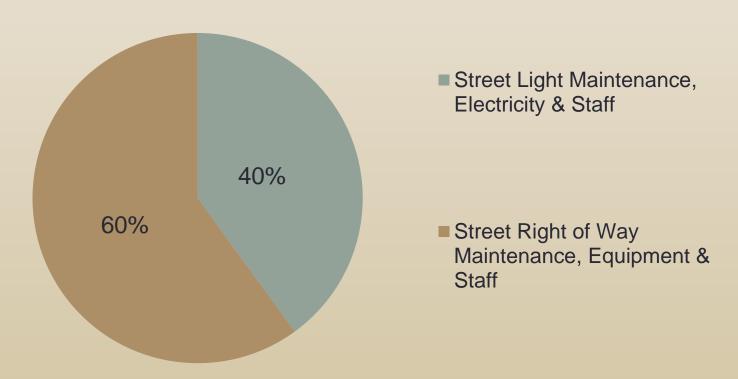
## Street Funding (Outside Sources) FY 19-20 Improvements and Maintenance

\*excludes General Fund & Sanitation Fund



## Street Funding (Outside Sources)

#### **Maintenance Appropriation - Gas Tax**



## Street Condition & Funding Comparison

Agency	Citywide PCI	Street Mileage	Annual Funding	Funding per Mile	Comments
Brea (2017)	77.9 (81.7 2015)	117 mi	\$2.75M	\$23,504	PCI will decrease to 76.6 at FY23/24 at current funding
Placentia* (2018)	67.0	131 mi	\$1.4M	\$10,687	PCI will decrease to 47 at FY29/30 at current funding
Anaheim (2017)	72.0 (71.0 2015)	585 mi	\$13.5M	\$23,077	PCI will decrease to 63 at FY23/24 at current funding
Orange (2018)	80.0 (78.0 2016)	314 mi	\$4.5M	\$14,331	PCI will decrease to 73 at FY24/25 at current funding
Fullerton (2018)	64.7 (61.6 2016)	294 mi	\$4.8M	\$16,326	PCI will decrease to 64.3 at FY24/25 at current funding

<sup>\*</sup> Report completed prior to approval of local ballot Measure U in Nov 2018

## Use of Street Funds - Improvements

Typical Allocation of Street Improvement Funds

- Total Funding Available = \$4.8 M
- Arterial/Major Streets
  - \$ 2.4 M (100% of available SB-1 funds)
  - Results in approximately 1 mile of improvements annually
  - City has approximately 68 miles to maintain
- Local/Residential Streets
  - \$2.4 M (Measure M2 and Gas Tax)
  - Results in approximately 2.5 3.0 miles of improvements annually
  - City has approximately 226 miles to maintain
  - Typically combine improvements with water/sewer improvements to help extend the limited funding

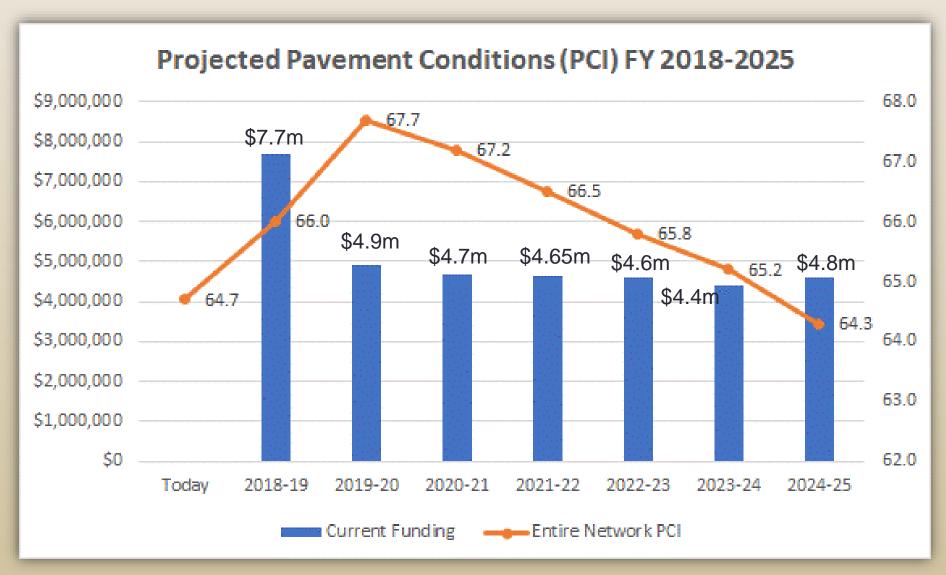
## Major Street Improvement Costs

#### **Budgetary Costs for Major Street Improvements**

Road Type	Treatment Type	PCI	\$ per Mile	\$ per SF
	Typically No Work	86-100	-	-
	Slurry Seal	75-85	\$128,000	\$0.76
Local/	2" Edge Grind & Overlay*	CO 74	\$674,000 to \$1,094,000	\$3.99 to \$6.47
Residential	4" Grind & Overlay*	60-74		
	6" Grind & Overlay*	41-59	\$1,322,000	\$7.82
	Full Reconstruction*	0-40	\$1,538,000	\$9.10
	Typically No Work	75-100	-	-
Arterial/ Major	3" Grind & Overlay*	CO 74	\$1,440,000 to \$1,642,000	\$4.55 to \$5.18
	4" Grind & Overlay*	60-74		
	6" Grind & Overlay*	41-59	\$2,102,000	\$6.64
	Full Reconstruction*	0-40	\$3,316,000	\$10.47

<sup>\*</sup> ADA improvements required

## PCI Projection (where we going)

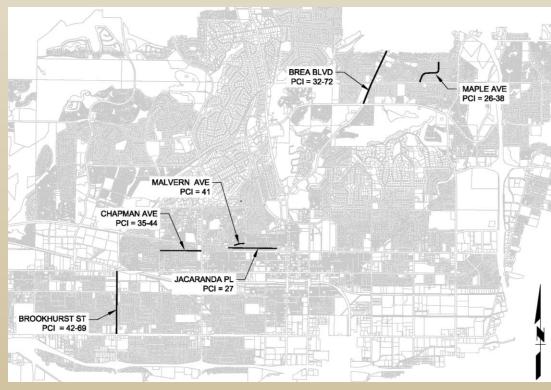


## Increase Level of Improvements

Simple Answer.....Increased Funding for Streets

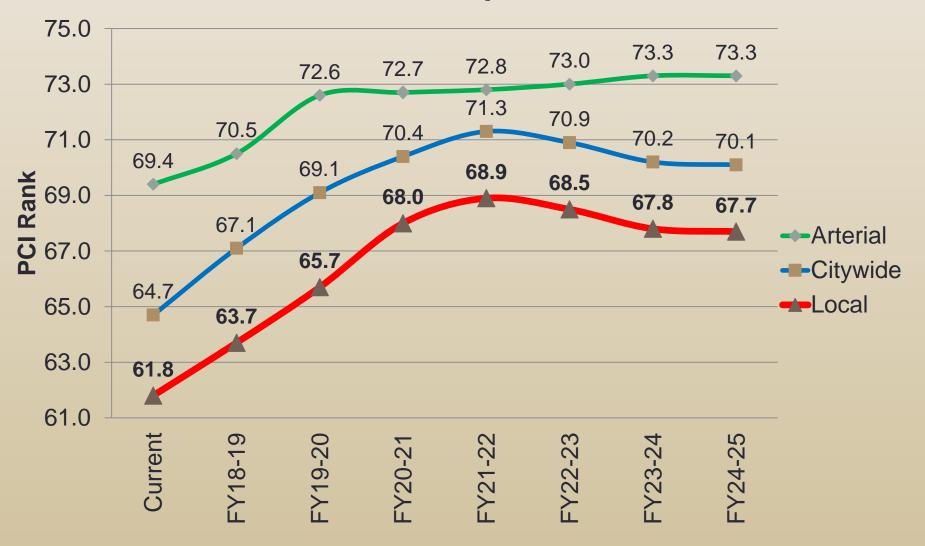
#### Use of One-Time Revenues

- On April 2, 2019 Council approved use of \$5.4M property sale revenue to fund street improvements.
  - Brea Boulevard
  - Maple Avenue
  - Chapman Avenue
  - Malvern Avenue
  - Jacaranda Place
  - Brookhurst Street



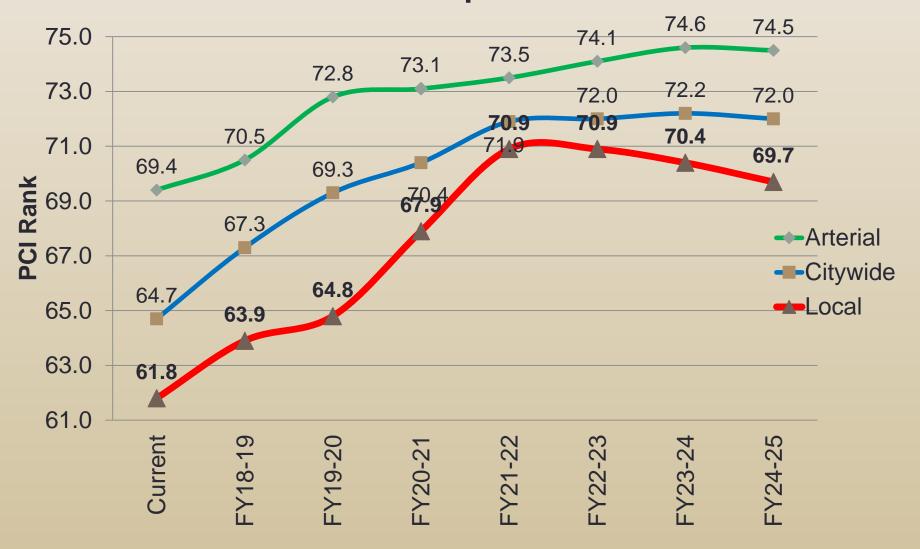
#### Additional Funding & Resulting PCI

#### **Total \$10.5 Million per Fiscal Year**



#### **Enhanced Funding & Resulting PCI**

#### **Total \$12 Million per Fiscal Year**



#### Street & Infrastructure Reviews

- August 1999
  - Staff report that included infrastructure deficiencies and various funding and revenue-raising options for all infrastructure needs, including streets.
  - Council formed the Infrastructure Advisory Committee.

#### April 2001

- Report by the Infrastructure Advisory Committee
- Included recommendation of an infrastructure deficiency funding plan with alternative strategies for financing ongoing maintenance and improvement costs.

#### Infrastructure Advisory Committee

Final Report April 2001

#### Street & Infrastructure Reviews

#### August 2012

 Staff report that included results from the PMP indicating an average spending need of \$8M just to maintain the current condition of the streets.

#### September 2012

 Staff report that included a discussion for additional funding for street improvements.

#### December 2013

 Staff report regarding City Infrastructure including condition and needed future funding for streets.

#### April 2017

 Letter from Citizens Infrastructure Review Committee recommending Council develop and implement a long term funding plan for street maintenance.

#### September 2018

 Letter from Citizens Infrastructure Review Committee to Council that included a request to consider budget cuts to fund street improvements.

#### Street & Infrastructure Needs Review

#### Infrastructure and Natural Resources Advisory Committee

- 9 member Council appointed committee of Fullerton residents
- Reviews infrastructure matters and provides recommendations to Council.
- Replaced the Citizens Infrastructure Review Committee.
- Currently reviewing all City Infrastructure Needs, including:

Streets	Alleys	Bridges
Parking Lots	Parking Structures	Airport
Traffic Systems	Monument Signs	Buildings & Facilities
Sewer System	Water System	Parks & Trails
Landscape & Trees	Street Lights	I.T. Systems
Maintenance Equipment	PD Equipment	Fire Equipment

#### Street & Infrastructure Needs Review

#### Infrastructure and Natural Resources Advisory Committee

- Infrastructure Needs Review involves determining deficiencies, funding needs to address deficiencies, providing strategies to address deficiencies and needs, priority of each deficiency, and potential funding sources.
- Recommendations will be presented to Council in early 2020.
- Committee meets 2<sup>nd</sup> & 4<sup>th</sup> Wednesday of each month. Residents are welcome to attend meetings and provide any comments.

For more information, please visit the INRAC website located in the City of Fullerton website.

## Community Survey

- The City is under contract with a consultant to complete a scientific survey of the community
- The survey will involve questions related to the City's infrastructure, including the streets, and will ask questions about expenditure cuts and revenue options related to making needed infrastructure improvements.
- The survey is expected to be in progress within the next several months.



## **Questions?**