



# Agenda

## Transportation and Infrastructure Subcommittee

Tuesday, February 13, 2018

9:00 AM

First Floor Assembly Rooms A, B & C

### CALL TO ORDER

### MINUTES OF MEETINGS

- 1 **For Approval or Correction, the Minutes of the Transportation and Infrastructure Meeting on Jan. 9, 2018.** **Page 7**

**Responsible Department**

This item is submitted by Deputy City Manager Mario Paniagua and the City Manager's Office.

### CONSENT ACTION (ITEMS 2-5)

- 2 **Arizona Blue Stake Annual Membership** **Page 18**

This report requests the Transportation and Infrastructure Subcommittee recommend City Council approval for the Street Transportation Department's annual membership with Arizona Blue Stake for Fiscal Year 2018-2019. Staff estimates an annual cost of \$52,600 for Fiscal Year 2018-2019.

**THIS ITEM IS FOR CONSENT ACTION.**

**Responsible Department**

This item is submitted by Deputy City Manager Mario Paniagua and the Street Transportation Department.

**3 Membership with the National Association of City Transportation Officials Page 20**

This report requests the Transportation and Infrastructure Subcommittee recommend City Council approval of an annual membership with the National Association of City Transportation Officials (NACTO) for an amount not to exceed \$17,500 for Fiscal Year 2018-2019.

**THIS ITEM IS FOR CONSENT ACTION.**

**Responsible Department**

This item is submitted by Deputy City Manager Mario Paniagua and the Street Transportation Department.

**4 Intergovernmental Agreement with the Flood Control District of Maricopa County for the 19th Avenue and Dobbins Road Project Page 22**

This report requests the Transportation and Infrastructure Subcommittee recommend City Council approval for an Intergovernmental Agreement (IGA) with the Flood Control District of Maricopa County (FCDMC) for the 19th Avenue and Dobbins Road Project. The estimated project cost is \$6.5 million, which includes channel rights-of-way, utility relocations, construction, construction management, post design, and materials testing.

**THIS ITEM IS FOR CONSENT ACTION.**

**Responsible Department**

This item is submitted by Deputy City Manager Mario Paniagua and the Street Transportation Department.

**5 Intergovernmental Agreement with the Flood Control District of Maricopa County for the 27th Avenue and Olney Avenue Storm Drain Project Page 25**

This report requests the Transportation and Infrastructure Subcommittee recommend City Council approval for an Intergovernmental Agreement (IGA) with the Flood Control District of Maricopa County (FCDMC) for the 27th Avenue and Olney Avenue Storm Drain Project. The estimated project cost is \$6 million, which includes channel rights-of-way, utility

relocations, storm drain construction, construction management, post design, and materials testing.

**THIS ITEM IS FOR CONSENT ACTION.**

**Responsible Department**

This item is submitted by Deputy City Manager Mario Paniagua and the Street Transportation Department.

**INFORMATION ONLY (ITEMS 6-9)**

**6 Metro, Regional Public Transportation Authority, and Maricopa Association of Governments Meetings Page 28**

This report provides the Transportation and Infrastructure Subcommittee with copies of past and/or upcoming meeting agendas/summaries for METRO light rail, Valley Metro/Regional Public Transportation Authority (RPTA), and the Maricopa Association of Governments (MAG).

**THIS ITEM IS FOR INFORMATION ONLY.**

**Responsible Department**

This item is submitted by Deputy City Manager Mario Paniagua and the Public Transit Department.

**7 Citizens Transportation Commission Meetings Page 30**

This report provides the Transportation and Infrastructure Subcommittee with copies of past and/or upcoming meeting agendas/summaries for the Citizens Transportation Commission.

**THIS ITEM IS FOR INFORMATION ONLY.**

**Responsible Department**

This item is submitted by Deputy City Manager Mario Paniagua and the Public Transit Department.

**8 Public Transit Department Capital Improvement Program Page 31**

This report provides the Transportation and Infrastructure Subcommittee with information on the Public Transit Department's Capital Improvement Program (CIP). The CIP is an integral component of the department's efforts to implement the public transit element of the Transportation 2050 (T2050) program and provide safe and reliable public transit services to the community.

**THIS ITEM IS FOR INFORMATION ONLY.**

**Responsible Department**

This item is submitted by Deputy City Manager Mario Paniagua and the Public Transit Department.

**9 Street Transportation Department Five-Year Capital Improvement Program (CIP) Update Page 36**

This report provides the Transportation and Infrastructure Subcommittee with an update on the Street Transportation Department's capital projects for Fiscal Year (FY) 2018, and the proposed future FY 2019-2023 Five-Year Capital Improvement Program (CIP).

**THIS ITEM IS FOR INFORMATION ONLY.**

**Responsible Department**

This item is submitted by Deputy City Manager Mario Paniagua and the Street Transportation Department.

**DISCUSSION AND POSSIBLE ACTION (ITEM 10)**

**10 Public Notification and Permitting of Planned Right-of-Way Construction During Holidays, Weekends and After Hours Page 44**

This report provides information to and seeks approval from the Transportation and Infrastructure Subcommittee to move forward with outreach to stakeholders on the Street Transportation Department's proposed policy for public notification and permitting of planned

right-of-way construction during holidays, weekends, and after hours.

**THIS ITEM IS FOR DISCUSSION AND POSSIBLE ACTION.**

**Responsible Department**

This item is submitted by Deputy City Manager Mario Paniagua and the Street Transportation Department.

**INFORMATION AND DISCUSSION (ITEM 11)**

**11 Solid Waste Equipment Operator Apprenticeship Program Update**

**Page 47**

This report provides information to the Transportation and Infrastructure Subcommittee about the Public Works Department's Solid Waste Equipment Operator Apprenticeship Program, in partnership with the Human Resources Department and Laborers' International Union of North America (LIUNA) Local 777.

**THIS ITEM IS FOR INFORMATION AND DISCUSSION.**

**Responsible Department**

This item is submitted by Deputy City Manager Karen Peters and the Public Works Department.

**CALL TO THE PUBLIC**

**FUTURE AGENDA ITEMS**

**ADJOURN**

For further information, or for reasonable accommodations, please call Kacie Howard, Management Assistant II, City Manager's Office, at 602-262-7684. 7-11 Friendly.

Persons paid to lobby on behalf of persons or organizations other than themselves must register with the City Clerk prior to lobbying or within five business days thereafter, and must register annually to continue lobbying. If you have any questions about registration or whether or not you must register, please contact the City Clerk's Office at 602-262-6811.

**Members:**

Councilwoman Thelda Williams, Chair  
Vice Mayor Laura Pastor  
Councilwoman Debra Stark  
Councilman Daniel Valenzuela



**For Approval or Correction, the Minutes of the Transportation and Infrastructure Meeting on Jan. 9, 2018.**

**Summary**

This item transmits the minutes of the Transportation and Infrastructure Meeting on Jan. 9, 2018 for review, correction or approval by the Transportation and Infrastructure Subcommittee.

The minutes are attached.

**Responsible Department**

This item is submitted by Deputy City Manager Mario Paniagua and the City Manager's Office.

**Phoenix City Council  
Transportation and Infrastructure Subcommittee  
Summary Minutes  
Tuesday, Jan. 9, 2018**

City Council Subcommittee Room  
Phoenix City Hall, Assembly Rooms A, B and C  
200 W. Washington St.  
Phoenix, Ariz.

Subcommittee Members Present  
Councilwoman Thelda Williams, Chair  
Vice Mayor Laura Pastor  
Councilwoman Debra Stark  
Councilman Daniel Valenzuela

Subcommittee Members Absent  
None

**Call to Order**

Chairwoman Williams called the Transportation and Infrastructure Subcommittee meeting to order at 9:02 a.m., with Councilwoman Stark and Councilman Valenzuela present.

**Call to the Public**

None.

**1. For Approval or Correction, the Minutes of the Downtown, Aviation, Economy and Innovation Subcommittee Meeting on Nov. 14, 2017**

Chairwoman Stark made a motion to approve the minutes of the Transportation and Infrastructure Subcommittee Meeting on Nov. 14, 2017. Councilman Valenzuela seconded the motion which passed 3:0.

**2. April 2018 Proposed Bus Service Improvements**

**3. West Transit Facility Fixed Route Services Contract**

Chairwoman Stark made a motion to approve items 2-3. Councilman Valenzuela seconded the motion which passed 3:0.

**4. Metro, Regional Public Transportation Authority, and Maricopa Association of Government Meetings**

Information only. No Councilmember requested additional information.

**5. Citizen Transportation Commission Meetings**

Information only. No Councilmember requested additional information.

**6. Public Works Department Five-Year Capital Improvement Program Updates**

Information only. No Councilmember requested additional information.



## **7. LED Street Light Conversion Project Update**

Information only. No Councilmember requested additional information.

## **8. Small Wireless Facilities in City Right-of-Way**

Deputy City Manager Mario Paniagua introduced the item. He stated the City currently had code provisions and a process for permitting small cell installations, however, the proposed changes were to bring the City's code into compliance with the new statutory requirements while also protecting the best interests of the City, its residents, businesses and taxpayers. He explained how the state law changes allowed wireless carriers to install antennas and equipment in the City Right-of-Way by right while placing limits on fees. He added the law limited the public input process and reduced the processing time for the City to review. He then introduced Director of Street Transportation Ray Dovalina, City Engineer Kini Knudson, and Chief Assistant City Attorney Dan Brown.

Mr. Knudson explained the reason the state law was passed and sponsored by the industry of wireless providers was due to the eventual move from a 4G to 5G network system which will require many small wireless facilities throughout the City. He brought up the concern for the lack of public input and reduced City review time. He stated currently there were 200+ installations in the City of Phoenix. He spoke about the existing ordinance and established procedures which were reviewed and modified in creating the proposed ordinance. He discussed some concerns including the number of locations, aesthetics, public concerns, and the Right-of-Way fees highlighting the City's desire to ensure residents are kept safe as the installations are done.

Chairwoman Williams asked for more information involving safety to the public. Mr. Knudson referred to the safety during the installation, ensuring there were proper barricades to ensure driver and pedestrian safety. He stated it was also important to ensure safety after installation during operation and maintenance.

Mr. Knudson discussed the coordinated efforts with the wireless industry including preliminary discussions, ordinance review, and ordinance negotiations. He stated there was still work to be done on the license agreements, design standards, and agreement terms and conditions which they would be working with the industry to prepare.

Councilwoman Stark asked if Sprint was involved. Mr. Knudson confirmed that they were.

Vice Mayor Pastor arrived at 9:13 a.m.

Mr. Knudson discussed the ordinance changes including aesthetics, stealth and concealment, safety of the public, right of way protection, fee structure, and existing agreements.

Chairwoman Williams asked why there needed to be a fee. Mr. Knudson responded giving specific examples within the state law involving the application, he also

mentioned the right-of-way fees, and safety reviewer fees. He discussed the time and resources involved. He mentioned the changing rate structure and compromises made within the proposal.

Vice Mayor Pastor discussed her meeting with the industry and a City representative and understanding the complexities on both sides. She discussed the priority of safety throughout the process.

Barb Meaney from Verizon Wireless felt the ordinance had improved and looked forward to working with the staff in the implementation phase. She highlighted a few items of concern including the existing license agreements and the impact on the existing structures Verizon had in the City feeling they would be put at a competitive disadvantage.

Garry Hays from AT&T commended City staff for their work and stated what was being proposed was not perfect but was workable. He stated they would continue to work with staff and find the best way to get coverage for residents with minimal impact.

Trish Hart from T-Mobile stated they also had some lingering concerns similar to Ms. Meaney's statements but would continue to work with the City and commit to being part of the stakeholder process.

Cheyenne Walsh from Sprint expressed appreciation for the staff time and efforts in improving the ordinance as drafted. She stated they looked forward to continuing to work with the city in the implementation phase.

Vice Mayor Pastor stated her commitment to staff and the industry to ensure implementation is done correctly and continued analysis and adjustments were made as necessary. She discussed the importance of the notification process as well as the education to the community.

Councilwoman Stark spoke about the notification process and asked the industry representatives if there were concerns the public may want to stop their efforts. Ms. Meaney stated the concern with notification provisions put in was it could imply there was an opportunity for the public to influence or stop the process. She stated the process had been set up outside of the typical zoning process, and there were concerns of making it appear as such and giving the public those expectations.

Chairwoman Williams requested clarification from staff that the notification was not a public hearing. Mr. Knudson confirmed that was the case. Chairwoman Williams stated she felt the public would be very supportive of the item. Ms. Meaney stated it was their hope as well. Mr. Hayes added how the notification process caused them to think internally about how to work on the process, he discussed their efforts to ensure everything was done correctly.

Vice Mayor Pastor made a motion to approve the staff recommendation on Small Wireless Facilities in City Right-of-Way. Councilman Valenzuela seconded the item and spoke about the reason the process was occurring due to a House Bill that was passed. He spoke about needing to visualize the changes that would be occurring and bringing people to the table. He stated becoming a 5G City would bring Phoenix closer to becoming a smart city.

Motion passed 4:0.

## **9. Automated Driving Systems**

Deputy City Manager Mario Paniagua introduced the item along with guest speaker Eric Anderson from the Maricopa Association of Governments (MAG) and Street Transportation Director Ray Dovalina.

Mr. Anderson stated he believed over the next five or ten years there would be fundamental shifts seen in how transportation services were provided. He explained how 94% of U.S. crashes involved human error resulting in almost 40,000 deaths which translated to almost \$600 billion dollars annually in costs related to traffic death and injury. He went over the six levels of automation stating level five, which was full automation, was where Waymo was headed in trying to develop a fully autonomous vehicle that could drive itself. In comparison, he stated Tesla was doing a lot of driver assistance technologies such as adaptive cruise control. He explained how the technology rested on four different components: Lidar (laser mapping), standard radar, cameras, and predictive artificial intelligence. He explained the technology gave the vehicle a great range of understanding, about 600 feet in all directions.

Mr. Anderson discussed how autonomous vehicles would arrive. He spoke about personally owned vehicles, currently the dominant form of transportation, and the emergence of the ridesharing companies which were pushing the technology of autonomous vehicles. He explained the business objective of the rideshare companies was to remove the driver from the vehicle, which currently presented the greatest cost. He did not believe autonomous vehicles would mean the end of private car ownership as there were many reasons why people owned cars including family considerations and storage options. He stated an important component of the adoption of autonomous vehicles was economics. He compared the costs of private car ownership and car sharing stating with private ownership the average cost per mile was 97 cents per mile versus 63 cents per mile with car sharing.

Mr. Anderson stated the experts were not certain how quickly autonomous vehicles would become a significant part of the fleet, but the year 2030 seemed to be a common estimate. Autonomous vehicles could penetrate the market by 25-30%, maybe higher if consumers were more willing to adopt the technology which he believed would happen once people become more comfortable with the technology and begin to understand it. He discussed the focused national attention on the region commenting on the testing being done by a number of companies including Cruise Automation, Uber and Waymo.

Mr. Anderson stated there were some unique opportunities as well as concerns autonomous vehicles presented for transportation in the region. Some opportunities he discussed included: new travel choices, better car ownership alternatives, safer streets, improved user experience, efficient network management, greater transit efficiency, and repurposed parking. Some concerns he discussed included: Increased vehicle miles traveled (VMT), empty vehicle circulation, higher road congestion, longer travel times, decline in local transit use, inequity, cyber-attacks, and privacy concerns. He discussed some estimates on trends that could happen, many of which would depend on how quickly autonomous vehicles became a part of the fleet. The variables he discussed dealt with timing, safety, capacity, demand, and energy/emissions of autonomous vehicles.

Councilwoman Stark asked, with reliance on the gas tax and an increase of electric vehicles, how road conditions might be positively impacted by the new technology. Mr. Anderson stated they had already seen erosion in the gas tax as vehicles were becoming more fuel efficient. He believed it could be an even greater issue in the future and the time to deal with it was now. He pointed out some conversations had with members in legislature about applying user charges to electric vehicles.

Mr. Anderson spoke about the different factors associated with the process, policy and planning of autonomous vehicles that would need to be considered. From a process standpoint he discussed new users and lifestyle changes pointing out some potential benefits to safety, congestion, emissions, land use and mobility. From a policy standpoint he pointed out economic and regulatory instruments as well as factors at the federal, state and local level that would be important to consider. From a planning standpoint, he discussed land use and transportation factors such as development and infrastructure investments that would benefit the region.

Vice Mayor Pastor asked how far in the future it would be until a person could privately own an autonomous vehicle. Mr. Anderson predicted within 10 years. He stated car share companies would also have a strong presence. He also discussed insurance premiums amongst private owners of autonomous vehicles and factors in increased safety performance potentially lowering rates.

Councilwoman Stark asked if there were things the City should be doing in preparation for autonomous vehicles such as looking at curbside service. Mr. Anderson said looking at zoning ordinances and the reuse of spaces would be important. He stated the development community would also be dealing with these types of considerations and maintaining the value of their investments.

Dianne Barker discussed some issues with MAG and missed opportunities in mass transit systems. She believed the bus system to be the most efficient transportation system able to carry more people than even the light rail.

Chairwoman Williams asked about the decrease in funding and considerations for future planning. Mr. Dovalina spoke about the fundamentals and keeping infrastructure in

good repair. He discussed looking at not only local but also regional, state and federal levels and working with partners in MAG and universities when planning for the future.

Chairwoman Williams discussed conversations had at Valley Metro Regional Public Transit Authority on slow implementation to replace Dial-a-Ride or some other services offered by the City.

Vice Mayor Pastor discussed cybersecurity and the potential for hacking and asked what was being done in the industry to minimize the risk. Mr. Anderson responded there was a lot of research being done and cybersecurity was a top concern.

#### **10. Landfill Gas Collection and Control Asset Management Program**

Deputy City Manager Mario Paniagua introduced Public Works Director Ginger Spencer, Assistant Public Works Director Joe Giudice, and Engineering Supervisor Doug Sawyer.

Ms. Spencer spoke about the Public Works Department managing six landfills in the City of Phoenix and Buckeye. She pointed out the currently closed landfills which were Del Rio landfill, 19th Avenue landfill, Deer Valley landfill, Skunk Creek landfill, and 27th Avenue landfill. She stated generally the landfills were in operation about 30 years and were anywhere from 100 acres to 200-plus acres. She then discussed the open landfill SR85, located in the City of Buckeye, which was over 2,000 acres and currently permitted to operate 100 years. She commented if all 2,000 acres were permitted the landfill could potentially be open for about 300 years. She discussed some of the land leases they had on the land there including an alfalfa field and a solar plant.

Mr. Giudice discussed the management of the landfill. He spoke about the landfill gas which was generated by the anaerobic digestion process. He pointed out the familiar methane gas but also stated there were hundreds of other gas constituents that resulted as part of the landfill process. He stated many of the gases could be harmful, and methane for example was not only a powerful greenhouse gas but also a natural gas. He discussed how they managed the landfill gas to protect public health as well as the environment. He explained many of the components in the landfill including the flare, gas header pipe, gas extraction wells, liner system, waste cells, and monitoring probes. He spoke about the importance of each component to the overall monitoring and safety at the landfill and how it was very important to the City to do everything possible to protect the environment and public health.

Chairwoman Williams asked what a cell was. Mr. Giudice stated each daily waste component was a cell and they built out larger cells in two year increments. He stated essentially a cell was the waste being buried in the landfill.

Vice Mayor Pastor asked if there was any point in the landfill drop off process in which they could prevent recyclable items from entering the landfill. Ms. Spencer stated the recycling process starts with residents, they would either recycle materials or throw them in the trash container. She explained how drivers would then pick up the

containers and take them to the transfer station. From there, she stated recyclable materials were sold on the market and trash was sent to the landfill. She stated they had done a study which analyzed the amount of recyclables being sent to the landfill. She stated a million tons of waste was sent to the landfill each year and the goal was to reach a 40% diversion rate from the landfill.

Vice Mayor Pastor asked if there was a process at the landfill to help residents dropping off at that point. Chairwoman Williams discussed the sorting process that took place at the transfer stations and the amount of effort and time that went into it. Mr. Giudice clarified if residents were to come directly to a transfer station, staff could assist them in separating recyclable materials. He stated residents were not permitted to drop off materials at the landfill.

Mr. Giudice continued describing several images of landfill components including a header line instillation, a wellfield gas line, the wells and valves, pipe repairs, the blower motor complex and the flare station. He stated managing the landfill, although it did require science, was more of an art. He pointed out how landfills were highly regulated operations with significant air quality permits and requirements. He stated the SR85 landfill would be the site of a future energy project and noted they were in negotiations with Ameresco to sell landfill gas for renewable energy fuel to be used in vehicles.

Mr. Giudice discussed the capital asset value. He stated the approximate initial capital costs for the flare station was \$8-10 million, for the well field was \$9-11 million, for the LGF header was \$3-5 million, and for the monitoring probes was \$2-4 million. He pointed out how some of the landfills had been closed for many years and yet were still being actively managed by the Department. He explained how the landfills at that point turned from an asset into a liability once they were closed as they were no longer generating any revenue in terms of accepting waste. He discussed the costs for operation maintenance and system expansion explaining it fluctuated annually depending on needed repairs. He stated typically for O&M they spent \$2.1 million a year not including staff time. He stated they tried to be as efficient as possible in repurposing materials however in the case of the 27th Avenue landfill flare which was outdated, they had to replace it, a project which costed about \$500-750 thousand. He added about every two years they invested about \$500 in expanding the gas collection wells.

Chairwoman Williams discussed the costs and explained how all the components were part of the solid waste fee residents paid and asked for more information. Ms. Spencer stated the current cost to residents was \$26.80 which was an all-inclusive fee. The fee included collection services, sorting of materials, driving the 60 miles each way to the landfill to drop off materials, staff time, ongoing maintenance and operation, as well as monitoring of the closed landfills. She stated currently the department had two transfer stations, two materials recovery facilities, six landfills as well as a brand new compost facility. She explained the industry was highly regulated by local, county, state and federal laws and they were a growing operation which brought with it additional costs.

Chairwoman Williams thanked the staff for all their efforts and willingness to explain their initiatives.

**Call to the Public**

Dianne Barker stated some positive things had happened in the City and MAG through citizenry. She spoke about the congestion in the I-17 and the air pollution in the City. She discussed the floor improvements made so people in wheelchairs could access City buildings. She spoke about equal rights and stated she would like the City to look at their Equal Opportunity department and any lawsuits.

**Future Agenda Items**

None.

**Adjournment**

Chairwoman Williams adjourned the meeting at 10:32 a.m.

Respectfully submitted,  
Sarah Moratto  
Management Intern

PHOENIX CITY COUNCIL  
 TRANSPORTATION AND INFRASTRUCTURE SUBCOMMITTEE  
 Tuesday, January 9, 2018  
 Assembly Rooms A, B, C  
PLEASE SIGN-IN

	Name	Title	Department / Organization
1.	Elizabeth Kellim	CS II - Lead	COP - Public Transit
2.	Jesus SANCHEZ	SR SR	PTD
3.	Roberto Valentin	Field Ops Manager	PTD
4.	Albert Crespo	Transit Superintendent	PTD
5.	Soy Bell	Env Qual Spec	Avr SWD
6.	Brian Yanez	PIU	PWD
7.	MARVIS COSTAMANI	<del>Coordinator</del> Grant Manager	PTD
8.	Ted Marsied	Yanez	COP
9.	Kevin Teng	Principal Planner	COP
10.	Joel Varner	Project Manager	Kimley-Horn
11.	Heath Munoz	CAP LNW	COP PTD
12.	Don Tynan		
13.	Ken Kessler	Deputy Public Transit Director	PTD
14.	Alyssa Ruggiero	ACCT MGR	RECUCEBANK
15.	Peter Hemingway	Vice President	Ribick Powell
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PHOENIX CITY COUNCIL  
 TRANSPORTATION AND INFRASTRUCTURE SUBCOMMITTEE  
 Tuesday, January 9, 2018  
 Assembly Rooms A, B, C  
**PLEASE SIGN-IN**

	Name	Title	Department / Organization
1.	Therrie Howard	NAPE	CHO
2.	TYLER GEWERTY	MOBILITIZEE	
3.	Dons Sawyer	Public works Eng Super.	Public works Disposal + Diversion
4.	Kelley Murray	COP AFI	COP
5.	David Smith	Pir Business Dev	First Transit
6.	Alexandra Albert	Public Inv. Spec.	WSP
7.	Joe Bonarack	Public Transit Deputy Director	Public Transit
8.	Maria Hyatt	PTD	
9.	Jason Mendoza	Mobilitic	
10.	Lanes Jacobson	PIO	Transit
11.	Joe Gubicki	Assistant Director	Public works
12.	John M. Morales	Director of External Log Affairs	AT&T
13.	Edward Harrison	Contract Supervisor	COP
14.	Eric Anderson	ATTORNS. DIR.	MTC
15.	Diana Weber	Deputy - Same	Streets
16.	Barb Meaney	Principal	Triadvocates
17.	Mike Jones	BRT Administrator	PIX
18.	Trish Hart	Wilson & Company	Narayan
19.	DAN MARUM		
20.	Darwin Barker	CITIZENS	
21.	Johi Naran	Project Director	PWO
22.	FELIX	7 PM	
23.			
24.			



## Arizona Blue Stake Annual Membership

This report requests the Transportation and Infrastructure Subcommittee recommend City Council approval for the Street Transportation Department's annual membership with Arizona Blue Stake for Fiscal Year 2018-2019. Staff estimates an annual cost of \$52,600 for Fiscal Year 2018-2019.

### **THIS ITEM IS FOR CONSENT ACTION.**

#### **Summary**

In accordance with the Blue Stake Law, the Street Transportation Department has been a utility member of Arizona Blue Stake (now known as Arizona 811) since 1968. The Blue Stake Law, Arizona Revised Statutes (A.R.S.) chapter 2, article 6.3, sections 40-360.21 through 40-360.32, requires that all underground facilities be marked prior to excavation, trenching or other digging. Blue staking is the act of marking underground facilities, such as: electric, gas, water, telephone, cable or other underground infrastructure to prevent these networks from being damaged during excavation, trenching or digging activities.

As a member of Arizona 811 (AZ 811), the Street Transportation Department's Traffic Signal Shop is notified of any contractor or utility company request to dig within City right-of-way. After notification, the Traffic Signal Shop and other participating utility entities have three days to mark existing underground infrastructure within the designated area, as defined by the Blue Stake request.

AZ 811 is the State's official regulatory agency that is tasked with providing this service for the entire State of Arizona. AZ 811 is the only agency that performs this service for all State, County, and City agencies. The service they provide is vital for public safety and prevention of damage to underground facilities.

The City has over 90,000 street lights and approximately 1,200 traffic signals and electronic traffic control devices such as High-Intensity Activated Crosswalk (HAWK) signals, Rectangular Rapid Flashing Beacons (RRFB), Speed Feedback Signs, etc. These systems are used to manage the flow of traffic safely throughout the City's nearly 5,000-mile street network. Failure to be a member, provides no protection for

this City of Phoenix infrastructure and without membership, the liability for damage by excavation falls to the City.

### **Contract Term**

This request is for a one-year membership with Arizona Blue Stake.

### **Financial Impact**

The Street Transportation Department's monthly assessment for Arizona Blue Stake is currently \$3,988.64. The rate changes on January 1 of each year. Staff estimates an annual cost of \$52,600 for Fiscal Year 2018-2019 to allow for up to a 10 percent increase in cost. The membership fee is determined by AZ 811 and based on three factors:

- The number of calls received by AZ 811 for City of Phoenix right-of-way.
- The relative size (area) encompassed by the City's infrastructure.
- The impact and danger the infrastructure poses on public safety.

Membership in Arizona Blue Stake promotes the safety and welfare of residents and visitors of the City of Phoenix by protecting the underground utilities from damage in accordance with statutory requirements.

### **Responsible Department**

This item is submitted by Deputy City Manager Mario Paniagua and the Street Transportation Department.



## **Membership with the National Association of City Transportation Officials**

This report requests the Transportation and Infrastructure Subcommittee recommend City Council approval of an annual membership with the National Association of City Transportation Officials (NACTO) for an amount not to exceed \$17,500 for Fiscal Year 2018-2019.

### **THIS ITEM IS FOR CONSENT ACTION.**

#### **Summary**

The Street Transportation Department has been a member of NACTO for more than a decade. The core of NACTO's mission is to build a strong network of peers and foster open communication and collaboration between cities. NACTO provides its members valuable technical assistance, peer-to-peer learning opportunities, and forums for sharing best practices. Through its annual Designing Cities conference, on-the-ground Cities for Cycling Road Shows, targeted street design workshops, and virtual design charrettes, NACTO offers its member cities opportunities to showcase new projects, receive feedback from their peers, explore common challenges, and learn from shared experiences.

NACTO offers its members valuable interaction with other cities while providing a forum for a unified urban voice in U.S. transportation policy. Member benefits include:

- Training and Workshops - NACTO staff leadership at Design Guide-based trainings.
- Publications - Membership on review committees for publications and resources, including those for the Urban Street, Urban Bikeway, and Transit Street Design Guides.
- Best Practices - A forum to share best practices in street design, network planning, and transportation practices from around the U.S., and for peer-to-peer exchange of innovative policies and ideas.
- Connection - Improved communications and dialogues between city staff working on a variety of transportation issues.
- Stay Up-To-Date - Regular updates on NACTO projects and events.

NACTO is a 501(c)(3) non-profit organization that represents large cities on transportation issues of local, regional and national significance. NACTO views the

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transportation departments of major cities as effective and necessary partners in regional and national transportation efforts; promoting their interests in federal decision-making. They facilitate the exchange of transportation ideas, insights and best practices among large cities, while fostering a cooperative approach to key issues facing cities and metropolitan areas.

NACTO's member cities include: Atlanta, Austin, Baltimore, Boston, Charlotte, Chicago, Denver, Detroit, Houston, Los Angeles, Minneapolis, New York, Orlando, Philadelphia, Phoenix, Pittsburgh, Portland, San Antonio, San Diego, San Francisco, San Jose, Seattle, and Washington DC. International NACTO member cities include: Halifax, Montreal, Toronto, and Vancouver. The cost for full membership to NACTO is \$17,500 annually. This rate is for core cities in U.S. metropolitan regions with two million or more residents.

**Contract Term**

This request is for a one-year membership with the National Association of City Transportation Officials.

**Financial Impact**

The membership fee is \$17,500 per year. This rate is for core cities in U.S. metropolitan regions with two million or more residents. Funds are available in the Street Transportation Department's Operating Budget.

**Responsible Department**

This item is submitted by Deputy City Manager Mario Paniagua and the Street Transportation Department.



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**Intergovernmental Agreement with the Flood Control District of Maricopa County for the 19th Avenue and Dobbins Road Project**

This report requests the Transportation and Infrastructure Subcommittee recommend City Council approval for an Intergovernmental Agreement (IGA) with the Flood Control District of Maricopa County (FCDMC) for the 19th Avenue and Dobbins Road Project. The estimated project cost is \$6.5 million, which includes channel rights-of-way, utility relocations, construction, construction management, post design, and materials testing.

**THIS ITEM IS FOR CONSENT ACTION.**

**Summary**

In late 2015, the FCDMC, in partnership with the City of Phoenix, initiated a study to update the Laveen Area Drainage Master Plan for the South Phoenix/ Laveen area using new mapping and comprehensive flood model software. The updated study used data gathered from heavy rains and flooding that occurred in August and September of 2014.

The study included analysis of existing regional drainage improvements such as drainage basins, channels, storm drains and culverts, much of which has been constructed based on recommendations from earlier versions of the regional drainage master plans. Construction efforts prior to this study focused mainly on the downstream portion of the overall recommended regional system to provide an outfall for future improvements closer to the foothills. The study recommends additional regional drainage facilities extending further up into the watershed to address neighborhood flooding issues that became more apparent during the 2014 storms.

The regional rainfall-runoff model now covers the entire study area. The new model identifies sources of stormwater flows so mitigation alternatives can be developed. Flood-prone areas known as Areas of Mitigation Interest (AoMIs) were identified. A total of 11 potential mitigation alternatives were developed and presented at two public meetings held in May 2017, at which time, comments were received from attendees. After further technical analysis of potential mitigation alternatives, the following

component is proposed as one of the recommended drainage master plans for the study area.

### 19th Avenue and Dobbins Road Project

Most flooding in this area and the areas to the north and west is associated with very large flows that enter Dobbins Road from the south between 15th Avenue to about 19th Avenue. This combined flow floods Dobbins Road and adjacent properties and ponds along Salt River Project's (SRP) Western Canal. The combined flow passes through the narrow area along Dobbins Road near the Western Canal and continues west, entering the intersection at 19th and other downstream areas.

The proposed project will construct a regional detention basin on about 5.5 acres at the northeast corner of 15th Avenue and Dobbins Road, east of the existing fire station, including a 4-barrel, 54-inch diameter basin inlet culvert under Dobbins Road to intercept flow from the existing Humane Society channel. The project will also construct a storm drain in Dobbins from the new regional basin west to 19th Avenue, then north to South Mountain Avenue, then west to the existing regional drainage basin at 27th Avenue and South Mountain Avenue. The storm drain would range in size from 54-inch diameter along Dobbins Road to 72-inch diameter along South Mountain Avenue. In addition to draining the new detention basin, the storm drain would have large inlets along Dobbins Road and numerous smaller inlets along 19th Avenue and South Mountain Avenue. The estimated cost for the project is \$6.5 million.

### **Financial Impact**

The estimated project cost is \$6.5 million, which includes channel rights-of-way, utility relocations, construction, construction management, post design, and materials testing. The terms of the IGA between the City and the FCDMC will jointly cost share for the project development and implementation of the 19th Avenue and Dobbins Road Project. The cost-share distribution between the City of Phoenix and FCDMC for this project will be included with the following projects to maintain an overall 50/50 cost share, which is the standard cost-share allocation for projects funded by FCDMC: (1) Durango Regional Conveyance Channel Project previously approved, (2) South Phoenix/Laveen Drainage Projects, and (3) Rawhide Wash Project. The City's contribution of up to \$3.25 million dollars is available in the City's five-year Capital Improvement Program (CIP) budget.

### **Location**

The project is generally located along 19th Avenue and along Dobbins Road, along South Mountain Avenue to the 27th Avenue and South Mountain Avenue Regional Drainage Basin.

Council District: 8

**Responsible Department**

This item is submitted by Deputy City Manager Mario Paniagua and the Street Transportation Department.





**Intergovernmental Agreement with the Flood Control District of Maricopa County for the 27th Avenue and Olney Avenue Storm Drain Project**

This report requests the Transportation and Infrastructure Subcommittee recommend City Council approval for an Intergovernmental Agreement (IGA) with the Flood Control District of Maricopa County (FCDMC) for the 27th Avenue and Olney Avenue Storm Drain Project. The estimated project cost is \$6 million, which includes channel rights-of-way, utility relocations, storm drain construction, construction management, post design, and materials testing.

**THIS ITEM IS FOR CONSENT ACTION.**

Summary

In late 2015, the FCDMC, in partnership with the City of Phoenix, initiated a study to update the Laveen Area Drainage Master Plan for the South Phoenix / Laveen area using new mapping and comprehensive flood model software. The updated study used data gathered from heavy rains and flooding that occurred in August and September of 2014.

The study included analysis of existing regional drainage improvements such as detention basins, channels, storm drains and culverts, much of which has been constructed based on recommendations from earlier versions of the regional drainage master plans. Construction efforts prior to this study focused mainly on the downstream portion of the overall recommended regional system to provide an outfall for future improvements closer to the foothills. The study recommends additional regional drainage facilities extending further up into the watershed area to address neighborhood flooding issues that became more apparent during the 2014 storms.

The regional rainfall-runoff model now covers the entire study area. The new model identifies sources of stormwater flows so mitigation alternatives can be developed. Floodprone areas known as Areas of Mitigation Interest (AoMIs) were identified through the updated study. A total of 11 potential mitigation alternatives were developed and presented at two public meetings held in May of 2017, at which time, comments were received from attendees. After further technical analysis of potential

mitigation alternatives, the following alternative component is proposed as one of the recommended drainage master plans for the study area.

### 27th Avenue and Olney Avenue Storm Drain Project

This area's greatest flooding problems are the major washes north of Olney Avenue east of 27th and 23rd Avenues, overwhelming the drainage infrastructure of existing subdivisions to the north and west. Flooding problems occur downstream from north of the subdivisions because there is no drainage infrastructure to carry stormwater to the recently constructed regional detention basin at 27th Avenue and South Mountain Avenue.

The proposed project will construct a 72-inch diameter storm drain in Olney Avenue from about 24th Drive west to 27th Ave, then north to the existing 27th Avenue and South Mountain Avenue regional basin. This storm drain would have large inlets at multiple locations along Olney Avenue to intercept drainage as well as multiple inlets along 27th Avenue, including a large inlet for the subdivision retention basin just south of the Western Canal. The project also includes a proposed Hazard Mitigation Assistance (HMA) regional drainage basin on about 4.5 acres along 23rd Avenue north of Olney Avenue. The estimated cost for the storm drain project is \$6 million. Reconstruction of the 27th Avenue between Olney Avenue and Gary Way may be required in conjunction with this proposed storm drain project. Portions of the existing roadway right-of-way remains within the Maricopa County Department of Transportation (MCDOT) jurisdiction. MCDOT may become a cost share partner in the IGA if the proposed project is extended to include roadway improvements to 27th Avenue between Olney Avenue and Gary Way.

### Financial Impact

The estimated project cost is \$6 million, which includes channel rights-of-way, utility relocations, storm drain construction, construction management, post design, and materials testing. The terms of the IGA between the City and the FCDMC will jointly cost share for the project development and implementation of the 27th Avenue and Olney Avenue Storm Drain Project. The cost-share distribution between the City of Phoenix and FCDMC for this project will be included with the following projects to maintain an overall 50/50 cost share, which is the standard cost-share allocation for projects funded by FCDMC: (1) Durango Regional Conveyance Channel Project previously approved, (2) South Phoenix/Laveen Drainage Projects, and (3) Rawhide Wash Project. The City's contribution of up to \$3.0 million dollars is available in the City's five-year Capital Improvement Program (CIP) budget.

**Location**

The project is generally located along Olney Avenue and 27th Avenue going north to the 27th Avenue and South Mountain Avenue Regional Drainage Basin.

Council District: 8

**Responsible Department**

This item is submitted by Deputy City Manager Mario Paniagua and the Street Transportation Department.



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## **Metro, Regional Public Transportation Authority, and Maricopa Association of Governments Meetings**

This report provides the Transportation and Infrastructure Subcommittee with copies of past and/or upcoming meeting agendas/summaries for METRO light rail, Valley Metro/Regional Public Transportation Authority (RPTA), and the Maricopa Association of Governments (MAG).

### **THIS ITEM IS FOR INFORMATION ONLY.**

#### **Summary**

Within Maricopa County, there are several agencies with different charges relating to public transit and transportation planning.

Valley Metro/RPTA: In 1993, the Regional Public Transportation Authority Board adopted the name Valley Metro as the identity for the regional transit system in metropolitan Phoenix. Under the "Valley Metro" brand, local governments fund the Valley-wide transit system which the public sees on the streets today. Valley Metro Board member agencies include Avondale, Buckeye, Chandler, El Mirage, Gilbert, Glendale, Goodyear, Maricopa County, Mesa, Peoria, Phoenix Queen Creek, Scottsdale, Surprise, and Tempe. Councilwoman Thelda Williams serves as Phoenix's representative on the RPTA Board of Directors.

METRO: METRO is the brand name for Valley Metro Rail Inc., a nonprofit, public corporation charged with the design, construction, and operation of the Valley's light rail system. The cities that participate financially in the light rail system each have a representative on the METRO Board of Directors. Cities on the board include Chandler, Glendale, Mesa, Phoenix, and Tempe. METRO is structured on a "pay to play basis" with voting power allocated based on investment in the system. Councilwoman Thelda Williams serves as Phoenix's representative and is the current chair of the METRO Board of Directors.

The Maricopa Association of Governments (MAG): MAG is a Council of Governments that serves as the regional agency for the metropolitan Phoenix area. When MAG was formed in 1967, elected officials recognized the need for long-range planning and

policy development on a regional scale. Issues such as transportation, air quality, and human services affect residents beyond the borders of individual jurisdictions. MAG is the designated metropolitan planning organization (MPO) for transportation planning in the Maricopa County region. Mayor Stanton serves as Phoenix's representative.

The goal of staff is to provide the Transportation and Infrastructure Subcommittee with agendas for future meetings of these bodies. Meeting dates do not coincide and agendas are not available until close to the meeting date. However, prior to each Board of Directors meeting, most agenda items are reviewed by staff committees which include City of Phoenix members.

Meeting agendas and/or additional information for previous and upcoming METRO, RPTA and MAG meetings will be distributed to Transportation and Infrastructure Subcommittee members at the meeting.

**Responsible Department**

This item is submitted by Deputy City Manager Mario Paniagua and the Public Transit Department.



## **Citizens Transportation Commission Meetings**

This report provides the Transportation and Infrastructure Subcommittee with copies of past and/or upcoming meeting agendas/summaries for the Citizens Transportation Commission.

### **THIS ITEM IS FOR INFORMATION ONLY.**

#### **Summary**

The Citizens Transportation Commission will advance transparency, public input, and government accountability by reviewing appropriations provided by Transportation 2050, as approved by the voters on Aug. 25, 2015.

The Commission will review T2050 appropriations and program recommendations of the Public Transit Department and the Street Transportation Department; annually review the revenues and expenditures of Transportation 2050 funds as well as funding from other sources; conduct public meetings; and formulate and present recommendations to the Phoenix City Council related to revenues, expenditures, projections, programs and major projects as called for by Transportation 2050.

Meeting agendas and/or additional information for previous and upcoming Citizens Transportation Commission meetings will be distributed to Transportation and Infrastructure Subcommittee members at each Subcommittee meeting.

#### **Responsible Department**

This item is submitted by Deputy City Manager Mario Paniagua and the Public Transit Department.



## Public Transit Department Capital Improvement Program

This report provides the Transportation and Infrastructure Subcommittee with information on the Public Transit Department's Capital Improvement Program (CIP). The CIP is an integral component of the department's efforts to implement the public transit element of the Transportation 2050 (T2050) program and provide safe and reliable public transit services to the community.

### **THIS ITEM IS FOR INFORMATION ONLY.**

#### **Summary**

The City of Phoenix Public Transit Department and its regional transit partners work collaboratively to provide public transit services for the Maricopa County region. A critical component of providing these services is the capital infrastructure needed to support the regional transit system. The Public Transit Department (PTD) programs project costs and funding sources, which include the region's financial share of projects, in the City's CIP each year. PTD has prepared and submitted to the Budget and Research Department its preliminary 2018 - 2023 CIP, as well as revised estimates for the current year CIP budget. Combined, the current year and preliminary five-year CIP for Public Transit total over \$932 million.

The scope of Public Transit's CIP focuses on adding new facilities and infrastructure to expand and enhance the transit system, as well as upgrades and capital purchases to maintain the system in a state of good repair as called for in federal guidelines. The PTD CIP includes construction of new facilities and light rail extensions, additional bus stop improvements (shade, furniture, and transit pads), acquisition of vehicles to replace aging fleet and expand the fleet for new service, updating technology and fueling systems, and renovation of older facilities to extend their useful lives. With the exception of one regional technology project, PTD's five-year CIP is fully funded, primarily with Federal Transit Administration (FTA) and regional Proposition 400 funds, as well as Phoenix Transportation 2050 (T2050) funds of \$150.3 million, and future bond funds.

The PTD CIP was developed to support economic development, regional mobility, environmental sustainability, and mitigate safety risks for passengers, staff, and

contractors. Funding, aging infrastructure, and implementation of T2050 projects and services are some of the primary strategic issues PTD faces currently and in the future. With voter approval of Proposition 104 (Transportation 2050) in August 2015, staff will continue to work with the Citizens Transportation Commission appointed by the Mayor and City Council to implement the T2050 Plan.

Although authorized federal funding levels for transit nationally have been established through 2020, there remains some uncertainty as to how much of that federal money will become available to Phoenix and our regional transit partners. Additionally, there is uncertainty as to how much of the authorized funding levels for transit will be appropriated by Congress and the President. Also, the regional Proposition 400 sales tax for transportation is currently set to expire in less than ten years, and that presents a concern, not for the current five-year CIP, but for mid to long term planning for public transit. PTD has, and will continue to, closely manage all its resources to ensure a balanced program while still meeting the community's public transit needs and maintaining system assets in a state of good repair.

There are several important projects programmed in the current fiscal year CIP budget. The regional transit communications system upgrade project is underway with installation of the radio equipment complete, and installation of the new CAD/AVL (Computer Aided Dispatch/Automated Vehicle Locator) equipment in progress. Purchase orders have been issued, and vehicle delivery is in process for 25 Dial-A-Ride (DAR) vehicle replacements, 26 40-foot Compressed Natural Gas (CNG) replacement buses, 12 40-foot diesel replacement buses, 20 60-foot replacement buses, 10 40-foot RAPID replacement buses, and two 60-foot RAPID replacement buses. Purchase orders will be issued for 11 40-foot diesel replacement buses, 14 40-foot RAPID replacement buses, and 11 60-foot RAPID replacement buses later this fiscal year. The Public Transit Department also submitted a competitive grant application for FTA funding of \$9.1 million, plus \$1.6 million T2050 local match funding for the purchase of 15 replacement buses. The grant awards have not yet been announced, and these amounts are included in the 2017-18 budget to ensure appropriation capacity if the grant request is funded by FTA. Construction of the new light rail station at Washington and 50th Streets and design for the South Central light rail extension are underway, and the refurbishment of the South Transit Facility will be complete in spring 2018. Additionally, ongoing improvements to bus stops, as well as capital maintenance of park-and-rides and transit centers, are underway. Various technology improvement projects, including transit systems software and hardware upgrades, are programmed this fiscal year. Improvements to the Public Transit administration building (302 N. 1st Ave.), including chiller replacement and other HVAC system upgrades are either underway or scheduled to begin this fiscal year.



There are several critical projects scheduled for next year. This includes the purchase of 25 DAR replacement vehicles, 25 40-foot replacement diesel buses, and 25 60-foot replacement diesel buses are programmed for next fiscal year. Also included in 2018-19 is the upgrade of the regional fare collection system, ongoing improvements for bus stops and other passenger facilities, continued design for the South Central light rail extension, and additional technology upgrades. Vehicles are programmed in each year of the five-year CIP, including 40-foot, 60-foot, and RAPID replacement buses, ongoing DAR replacement vehicles, and neighborhood circulator replacement buses. In addition to ongoing improvements to passenger facilities and technology systems, construction of a new park-and-ride near 59th Avenue and Baseline Road, as well as the design and construction of the South Central, Northwest Phase II, and Capitol/I-10 West Phase I light rail extensions are programmed in the five-year CIP.

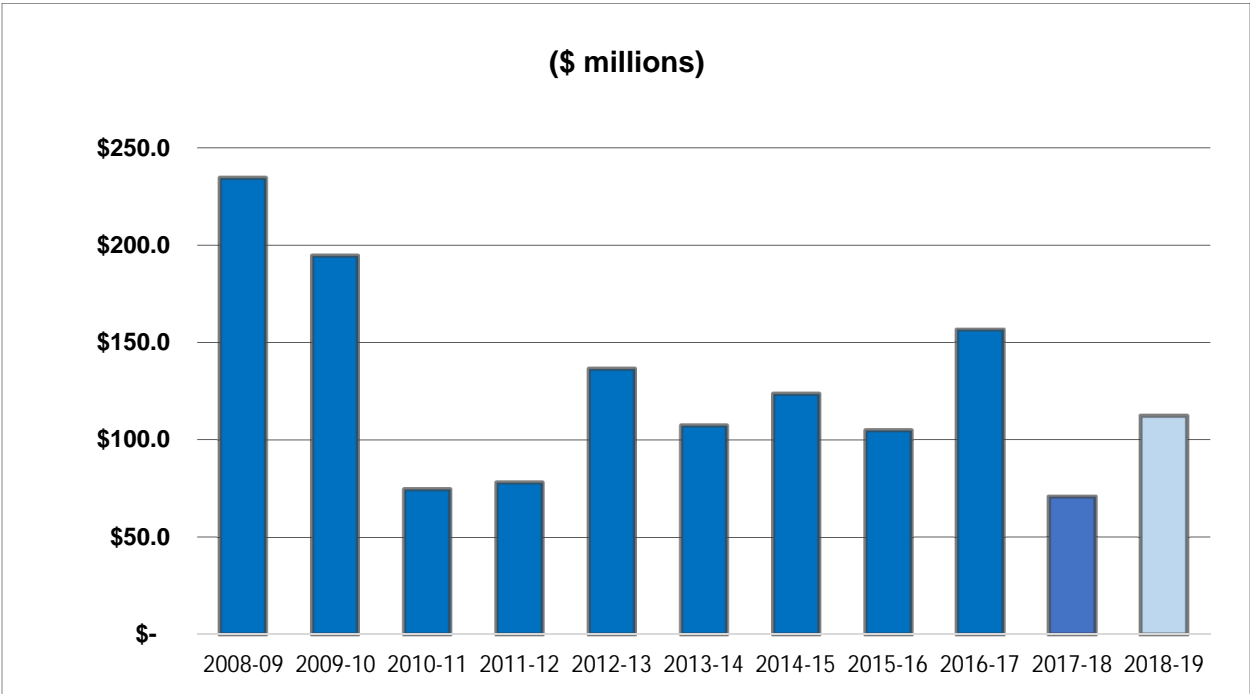
Over the past 10 years Public Transit's CIP budget has decreased significantly from over \$235 million in 2008-09 to about \$112 million in 2018-19. The primary reason for this reduction is the construction of the original light rail system, to which Phoenix contributed significant funding from 2002-03 through 2008-09. Since the completion of that project, Public Transit's CIP budget has been more moderate as shown in Attachment A. However, the Public Transit CIP will grow in the coming years with the planned construction of the South Central, Northwest Phase II, and Capitol/I-10 West Phase I light rail extensions, as well as other T2050 program improvements.

Historically, aside from the years of construction of the original light rail system, Public Transit's CIP budget is mostly funded by FTA funds, with the balance of the CIP funds coming mostly from Transit 2000 (now Transportation 2050) or Proposition 400 (regional funds) as local match to FTA funds, and for projects that are 100 percent locally funded. As the T2050 light rail extensions and other transit capital improvements are implemented, financing is needed to provide funding for those projects, as projected in the T2050 Plan. In a future T&I meeting, staff will provide information for discussion and consideration regarding future T2050 bond funds programmed for projects beginning in 2019-20. Attachment B provides a summary of the proposed 2018-19 CIP budget projects and funding for Public Transit.

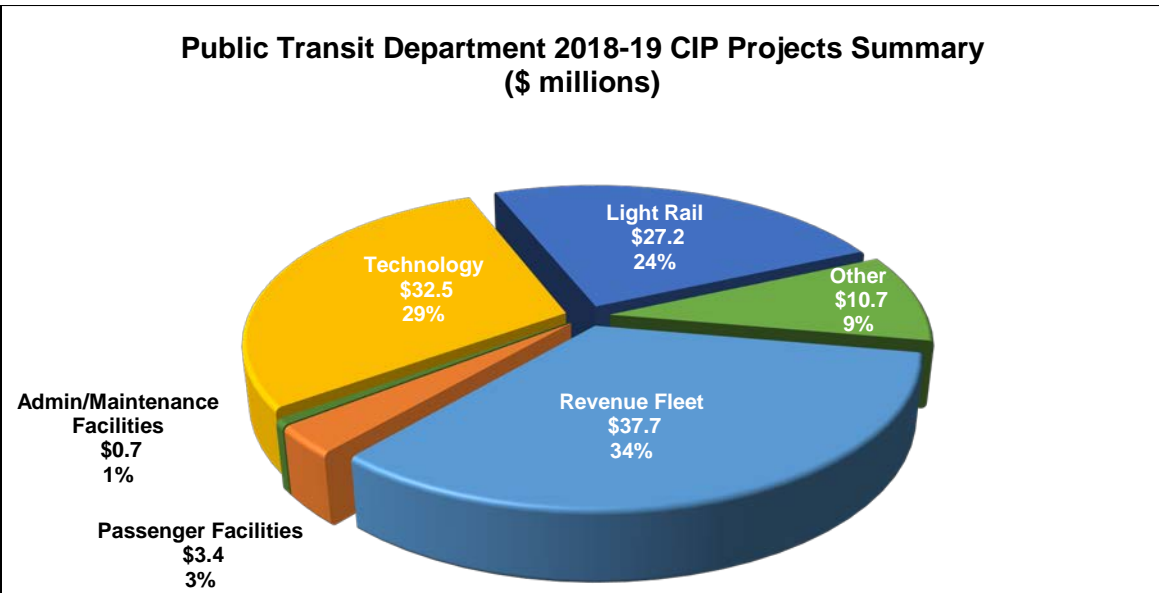
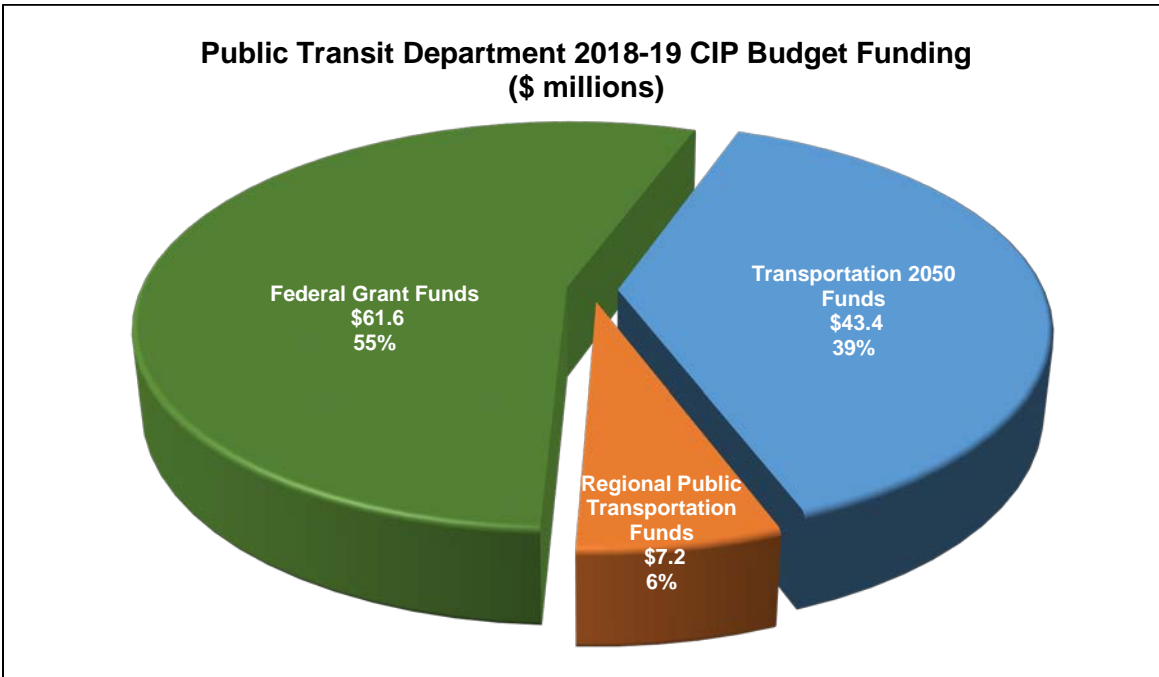
**Responsible Department**

This item is submitted by Deputy City Manager Mario Paniagua and the Public Transit Department.

**Attachment A – Public Transit Department Adopted CIP Budget History**



**Attachment B – Public Transit Department 2018-19 CIP Budget Funding and Projects Summary**





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## **Street Transportation Department Five-Year Capital Improvement Program (CIP) Update**

This report provides the Transportation and Infrastructure Subcommittee with an update on the Street Transportation Department's capital projects for Fiscal Year (FY) 2018, and the proposed future FY 2019-2023 Five-Year Capital Improvement Program (CIP).

### **THIS ITEM IS FOR INFORMATION ONLY.**

#### **Summary**

The Street Transportation Department (Streets) regularly provides the T&I Subcommittee with information about the condition of the City's streets, including an overview of programs, funding sources, and challenges, as well as a report on future capital infrastructure needs.

Streets funding sources include Highway User Revenue Fund (HURF), Transportation 2050, Federal and Local Aid, Capital Construction Fund (CCF), and Impact Fees. The passage of Proposition 104 / Transportation 2050 (T2050) in August 2015 provided a new funding source for street improvement projects starting Jan. 1, 2016. City staff has worked with the Citizens Transportation Commission (CTC), T&I Subcommittee and City Council to identify, program, and execute projects that meet the goals of T2050 and set priorities for projects moving forward. As these efforts continue, Streets incorporates these projects, including budgets and schedules into the CIP.

The Department utilizes five major areas to guide capital funding investments:

- 1) Major Streets Pavement Maintenance Program
- 2) Major New and Expanded Streets
- 3) Mobility Improvements Program
- 4) Technology Enhancements
- 5) Storm Water Improvements

These prioritized areas will ensure Streets' CIP is best able to address public expectations, support traffic and travel demands, facilitate commercial and residential development, and work on local and regional drainage needs throughout the City.

The FY 2018 preliminary expenditure estimate for Streets' CIP is \$240,949,663, and total project expenditures of \$972,610,871 for the life of the CIP.

### Project Overview

Some of the major new transportation projects currently underway and/or programmed within the CIP include:

#### *Major Streets Pavement Maintenance Program*

Major maintenance includes pavement restoration and refurbishment, bridge rehabilitation and inspection, and other major activities focused on keeping the City's street transportation network in a state of good repair.

Projects programmed for maintenance in FY 2018 and in the CIP include the pavement preservation management program (crack seal, slurry/micro seal, asphalt overlay), bridge preventative maintenance (rehabilitation, maintenance, and inspection), alley dustproofing, street sweeper equipment purchases, landscape maintenance, and storm damage repairs.

The Streets CIP includes a projected \$80 million total for pavement maintenance projects funded by T2050. T2050 funding has led to a significant increase in the number of lane miles receiving a pavement maintenance treatment, moving the department towards the goal of treating 680 miles of arterial and major collector streets. The T2050 funding is supplemented by \$154 million in HURF revenues also allocated to pavement maintenance projects.

An additional \$3 million in HURF funding has also been added to the existing FY 2018 Street Maintenance Crack Seal program to improve pavement conditions on residential streets and to align coordinated pavement management treatments in future years.

#### *Major New and Expanded Streets*

The following Major New and Expanded Streets projects will begin design and construction in the years noted to build streets out to their ultimate cross-sections (widths) including the following improvements where feasible; pavement rehabilitation, curb, gutter, sidewalk, bridge improvements, bike lane facilities, landscaping improvements, traffic signal, intersection and storm drain improvements:

- Pinnacle Peak Road: 45th Avenue to 35th Avenue - Construction planned to begin FY 2018.
- Pinnacle Peak Road: Central Avenue - 7th Street - Design planned to begin FY

2020, and construction is planned to begin in FY 2021.

- Jomax Road: I-17 to Norterra Parkway - Design planned to begin FY2018, Construction planned to begin in FY 2019 (funded in part through a developer agreement and impact fees).
- Deer Valley Road: Cave Creek Road to Black Mountain Boulevard - Construction underway in FY 2018 (funded in part through a developer agreement and impact fees).
- 24th Street and Grand Canal Bridge Replacement - Design planned to begin in FY 2019 and construction planned to begin in FY 2020.
- 27th Avenue: Lower Buckeye Road to Buckeye Road - Construction planned to begin FY 2018, with right-of-way acquisition planned to be completed in FY 2019.
- Riverview Drive: 18th Street to 22nd Street - Construction of bridge planned to begin FY 2018.
- Avenida Rio Salado Phase II: 51st Avenue to 35th Avenue and 7th Avenue and 7th Street Intersections - Construction FY 2018 and FY 2019.
- Chandler Boulevard: 19th to 27th Avenue - Construction to be completed in FY 2018 (fully funded by Arizona Department of Transportation) in coordination with the South Mountain Freeway (Loop 202) project.
- Maricopa County (MC) 85, Buckeye Road 107th Avenue to 75th Avenue - Construction underway in FY 2018 (funded through a developer agreement and intergovernmental agreement with the Maricopa County Department of Transportation).

In addition, the following new T2050 Major Street projects have been approved by the CTC with design planned to start in FY 2018, and right-of-Way acquisition and construction planned for future years:

- Lower Buckeye Road: 27th Avenue to 19th Avenue.
- 43rd Avenue: McDowell Road to Virginia Avenue - Safety Improvements.
- Buckeye Road: 67th Avenue to 59th Avenue.
- 43rd Avenue: Virginia Ave to Grand Canal - Safety Improvements.

### *Mobility Improvements Program*

Recognizing the multi-modal use of the City's roadways, pedestrian and bicycle mobility projects support efforts to increase the safety, mobility and accessibility of City streets for all users.

With the adoption of the Bicycle Master Plan and the Complete Streets ordinances by City Council, mobility-related projects have become a priority in the development of the CIP. Additionally, implementation projects related to City planning efforts such as

Reinvent Phoenix and the Downtown Comprehensive Transportation Study are being incorporated into the CIP as well.

Several HURF-funded projects focused on moving the City towards delivery of a well-connected low-stress bicycle and pedestrian network have completed major pre-design and public outreach efforts, and will advance to the design phase of project development in FY 2018. Some of these projects leverage other local and federal funding. Right-of-way and construction phases are planned for future years.

- Oak Street: 3rd Street to Grand Canal - Bike and Pedestrian Improvements.
- 3rd Street: Roosevelt to Indian School Road - Bike and Pedestrian Improvements.
- 3rd Street: Washington Street to Lincoln Street - Bike and Pedestrian Improvements.
- 3rd Avenue and 5th Avenue: Washington Street to McDowell Road - Bike and Pedestrian Improvements.
- Van Buren: 7th Street to 24th Street - Bike and Pedestrian Improvements.
- Grand Canalscape Phase I and Phase II (primarily funded by Federal funds and SRP Aesthetics funds).
- 107th Avenue: Camelback Road to Indian School Road - Bike and Pedestrian Improvements (primarily funded by Federal funds).

In addition, the following HURF and federally funded programs are included in the CIP:

- Americans with Disabilities Act (ADA) Compliance Improvements - This program installs, replaces, or improves ADA ramps Citywide that are non-existent or in need of upgrades to meet ADA requirements. Ramp improvements will lead to a more accessible transportation system for disabled individuals. Funds are programmed for ramps in all years of the Five-Year Program.
- GRID Regional Bike Share - The GRID Regional Bike Share program was launched in November 2014. Expansion of the system, which includes new bicycles and bicycle stations, will further encourage bicycling as a convenient and affordable mode of transportation. Federal funds are expected to support the expansion in future fiscal years.
- Bicycle Master Plan Projects - The plan was adopted in November 2014. Tier 1 projects, which are projects slated for completion within five years, will be implemented utilizing \$2 million programmed annually for bicycle and mobility projects. Streets' staff has developed a project scoping program that will scope and budget bicycle improvements identified in the plan for inclusion in the Streets' CIP.
- The T2050 Plan outlines street-related commitments to build 135 miles of new sidewalks and 1,080 miles of bike lanes. Staff has developed a draft Five-Year Bicycle Program Plan of Improvements, and a public open house has been held to garner public feedback related to the plan. Staff is continuing to work with the public

and the CTC to identify and adjust priorities. Once priorities are determined and approved, projects will be programmed in the CIP.

The following T2050 Mobility Improvements Program sidewalk projects approved by the CTC and City Council, through coordination with the Public Transit Department as related to access along public transit routes, are planned for design and/or construction in FY 2018:

- 75th Avenue and Van Buren Street.
- Deer Valley Road and Marriott Drive.
- 27th Avenue and Rose Garden Lane.
- Hilton Avenue and 19th Avenue.
- Scottsdale Road: Sweetwater Avenue to Joan de Arc Avenue.
- 29th Avenue and Pinnacle Peak Road.
- 27th Avenue: Villa Maria Drive to Bluefield Avenue.
- Scottsdale Road: Mayo Boulevard to SR101.
- Baseline Road: 12th Street to 13th Place.
- 31st Avenue: Willow Avenue to Voltaire Avenue.
- 29th Avenue South of Happy Valley Road.
- 19th Avenue: Van Buren to Fillmore Street.
- Area Bounded by Cave Creek Road, 26th Street, Angela Street, and Marco Street.

The T2050 Mobility Improvements Program includes 11 approved Mobility Studies with a public outreach component in 11 areas throughout the City that are being coordinated with planning efforts of other City departments (e.g. Choice Neighborhoods, Reinvent Phoenix, South Central Light Rail Extension, etc.) to identify and prioritize projects for development of a Five-Year Program of projects. The sidewalk, bike lane, mid-block crossing, etc. improvements identified by the studies will utilize T2050 funding for design and construction in future years. It is expected all studies, and the development of a Five-Year Program of improvements will be presented to the CTC by Spring 2019.

### *Technology Enhancements*

Technology Enhancement projects are intended to implement technology solutions to improve traffic operations and achieve efficiencies in the operation and maintenance of the City's street network.

Some of the major technology enhancement projects currently underway and/or programmed within the proposed CIP include:

- LED Streetlight Conversion - Streets is working towards the conversion of a



minimum of 90,000 street lights citywide to Light Emitting Diode (LED) technology to save energy and overall operating costs long-term. The project is currently underway in FY 2018 and implementation will continue into FY 2019.

- Signal System Upgrades - Signal system upgrades involve the latest technology tools needed to support the City's growing traffic signal and Intelligent Transportation System (ITS) infrastructure, which include signal controllers and cabinets, software, cameras, message boards, wireless radios, servers, and other related devices necessary to support and improve the traffic signal network and the Traffic Management Center in City Hall. These upgrades are critical to improve the efficiency and monitoring of over 1,100 traffic signals and to support special events, traffic management, and other traffic improvement initiatives. Upgrade funding is included in the Streets' CIP.
- Illuminated Street Name Signs - T2050 and HURF funding is programmed to replace additional street name signs in FY 2018 and FY 2019. The department installed over 3,925 traffic signal illuminated street name signs over the past 16 years to improve night-time road safety, appearance, and convenience. These signs improve visibility and legibility of street names at longer distances and in varying driving conditions. In addition, they reduce the attention required to read street names; thus, giving drivers more time to plan their maneuvers at intersections.

### *Storm Water Projects*

Storm Water projects for flood mitigation are focused on planning and building major facilities including basins and pipelines, in partnership with the Flood Control District of Maricopa County (FCDMC), to implement storm water and flood plain management solutions. Typically, the City's major storm water projects are built under a cost sharing agreement between Phoenix and the FCDMC and detailed in a project-specific Intergovernmental Agreement. At this time, there are limited regional funds available to advance and complete major storm water projects, and there is no dedicated local funding source to support the completion of these projects. However, within the existing funding resources, several capital projects are currently underway and/or programmed within the CIP:

- Durango Regional Conveyance Channel - The project will build a regional drainage channel and basin in the vicinity of the Salt River Project Buckeye Feeder Canal to intercept storm water flows and provide an outfall to the Agua Fria River. The project would reduce flooding hazards and provide a 100-year outfall in the Durango drainage area. Construction is planned to begin in FY 2018 in partnership with the FCDMC.
- Rawhide Wash Project - The project will build drainage improvements including floodwalls and levees in the Rawhide Wash in partnership with FCDMC and the City of Scottsdale. Design is planned to begin in FY 2018 with construction in FY 2019

through FY 2021. This project is being completed in partnership with the FCMDC.

- 27th Avenue and Olney Avenue Storm Drain Project -The project will construct drainage improvements in the vicinity of 27th Avenue and Olney Avenue, including a storm drain, inlets, and a regional drainage basin. This project is being completed in partnership with the FCMDC.
- 19th Avenue and Dobbins Road Project - The project will construct drainage improvements in the vicinity of 19th Avenue and Dobbins Road. The improvements include a regional detention basin, inlets, and a storm drain. This project is being completed in partnership with the FCMDC.
- Local Drainage Solutions - The FCMDC Local Drainage Program helps to reduce local flooding and mitigate maintenance issues where it is cost effective to do so. The program can also extend the existing drainage system that is designed for the two-year storm event. More than 750 individual locations throughout the city have been identified as requiring drainage improvements. These improvements include construction of storm drains, catch basins, and curb/gutter.
- Dam and Levee Safety Maintenance - Streets annually inspects and maintains 16 dams in the City of Phoenix. Four of the dams are jurisdictional, four are non-jurisdictional, and the remaining eight are located at the Phoenix Zoo. Inspections of jurisdictional dams in conjunction with the Arizona Department of Water Resources (ADWR) are required by State of Arizona law and FEMA regulations. A dam is considered jurisdictional if it impounds 50 acre-feet of water or if it is at least 25 feet high. The dams within the City of Phoenix provide flood protection for several hundred homes and properties.

Moving forward, the City's Storm Water / Flood Control Program will be assigned to the Public Works Department.

### *Challenges*

Although the number of funded projects has increased in recent years, there are significant additional costs associated with maintaining the City's aging transportation infrastructure system. Additional funding challenges include:

Highway User Revenue Fund - HURF is the primary funding source for Streets' programs. Because HURF is mainly based on motor fuel usage, the effectiveness and long term sustainability of this fund have been diminished over many years as a result of increased electric vehicle utilization, improved vehicle fuel efficiencies, use of alternate modes of transportation, and the lack of an increase over the past 25 years to account for inflation.

Capital Construction Fund (CCF) - CCF is a telecommunications-based revenue

source related to the use of City right-of-way. This fund has been declining for several years due to shifts in telecommunications technology to activities that are not taxable under current law. This fund has declined from approximately \$21 million collected in FY 2008, to just \$11 million collected in FY 2017. Staff anticipates this fund will continue to decrease in future years.

**Responsible Department**

This item is submitted by Deputy City Manager Mario Paniagua and the Street Transportation Department.



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## **Public Notification and Permitting of Planned Right-of-Way Construction During Holidays, Weekends and After Hours**

This report provides information to and seeks approval from the Transportation and Infrastructure Subcommittee to move forward with outreach to stakeholders on the Street Transportation Department's proposed policy for public notification and permitting of planned right-of-way construction during holidays, weekends, and after hours.

### **THIS ITEM IS FOR DISCUSSION AND POSSIBLE ACTION.**

#### **Summary**

The Street Transportation Department (STR) proposes the policy outlined in this report that includes a consistent public notification plan and permitting process encompassing all planned work within the right-of-way taking place during holidays, weekends and after hours.

There has been a significant increase in the number of utility, private developer, and City projects that take place in the right-of-way. This has led to additional traffic congestion and adverse impacts to the traveling public. Often, in order to minimize disruptions to traffic, it is necessary to perform planned right-of-way work outside of normal daytime hours. This proposed policy is intended to address these situations, as well as unplanned emergency work.

In reviewing existing City policies, it is clear that consistent policies have not been adopted in all areas that may authorize, oversee or perform construction activities during holidays, weekends and after hours. For example, the Planning and Development Department requires private development construction to follow a permit process for construction taking place during holidays, weekends and after hours. However, not all areas of the Street Transportation Department use a similar permitting and notification process.

The main elements of the existing policies that are intended to be implemented across the board include: 1) review to determine if working outside of normal hours is warranted; 2) a requirement that residents near the work site be notified; 3) ability to

revoke the 'after hours' permit if the City receives complaints that cannot be resolved; 4) a specific time period for the work to be completed, and 5) construction-related traffic being restricted to major, non-residential, streets.

### Proposed New Street Transportation Department Policy

To ensure consistency in the permitting and notification process going forward, the STR recommends establishing a citywide policy/procedure that will be managed by a Deputy Street Transportation Director, who will serve as the single point of authorization for all work performed in the right-of-way outside of normal work hours.

STR staff reviewed the application and permitting process currently used by the PDD and plan to include many of the same elements as part of new STR policy. It is important to note that although emergency work may be permitted under the new policy, advance notification requirements for emergency situations will not apply. The nature of emergency work necessitates an immediate response without an opportunity for advance planning and notification. The new STR policy will include descriptions of what is considered emergency work. The conditions, documentation, and processes that will be incorporated into the new STR policy include the following:

#### *Conditions for Approvals*

- Construction-related traffic is limited to major streets. Use of local (residential) streets is prohibited.
- A maximum practical distance shall be maintained between residences and work sites.
- Residents within 500 feet will be notified by the contractor in advance, with permittee notification to include a contact name and phone number.
- The permit may be immediately revoked if the City receives complaints that cannot be resolved.

#### *Required Documents to Submit*

- Application: The application will request the dates and times for construction work.
- Rationale Letter: The letter will provide justification and reasoning why the work must be completed outside of normal work hours.
- Construction Schedule: The schedule will show planned dates for the work.
- Roadway Site Plan: The plan will clearly show the proximity of the work site to residential dwellings and commercial properties.
- Notification Flyer/Letter (if within 500 feet from residential properties). A copy of the letter will state the work activity area and includes a contact name and phone number to call anytime.

- Approved Haul Plan/Permit (if applicable): A copy of the haul plan/permit is required to show no impact to local (residential) streets.

### *Process*

The STR will respond to applications within five working days of the date it is received. The typical application review and permitting process would include:

1. Contractor submits a complete application.
2. STR staff reviews the application. The review will include the following;
  - Determination of proximity to nearby residential dwellings.
  - Confirmation that notification flyers include the required information.
  - Notification and coordination of a final decision with the corresponding Council office.
3. A decision of one will be provided in writing by the Deputy Street Transportation Director that the application is:
  - approved as requested;
  - denied; or
  - approved with stipulated conditions.
4. STR staff will issue the decision to the requester. If the request is approved, a copy of the approval will be forwarded to the City Manager's Office and Council office.

### Outreach

To ensure affected stakeholders are provided with the opportunity to review and comment on the proposed new STR policy , it is recommended that in the coming weeks, staff schedule meetings with key stakeholders including internal City staff (STR, PDD, and Water Services), utility companies, and City contractors to discuss and solicit input.

### Next Steps / Requested Action

Any projects directly performed or managed by the Street Transportation Department have already begun following the proposed policy outlined in this report. Staff requests T&I Subcommittee approval to move forward with outreach to affected stakeholders for the broader application of the policy to utilities and contractors and to return to T&I Subcommittee in March or April 2018 for recommended approval of the final policy.

### **Responsible Department**

This item is submitted by Deputy City Manager Mario Paniagua and the Street Transportation Department.



## **Solid Waste Equipment Operator Apprenticeship Program Update**

This report provides information to the Transportation and Infrastructure Subcommittee about the Public Works Department's Solid Waste Equipment Operator Apprenticeship Program, in partnership with the Human Resources Department and Laborers' International Union of North America (LIUNA) Local 777.

### **THIS ITEM IS FOR INFORMATION AND DISCUSSION.**

#### **Summary**

Attracting and retaining qualified staff is a challenge for all City departments. Maintaining staffing levels for positions like the Solid Waste Equipment Operator (SWEO) is essential due to the critical role they play in providing weekly solid waste collection services to over 400,000 customers citywide.

During 2016 Labor Negotiations, the City and LIUNA Local 777 worked collaboratively to establish a pilot apprenticeship program for the SWEO job classification for the City Council-approved three-year Memorandum of Understanding.

In March 2017, the City launched its inaugural class of SWEO Apprentices. The first year of the pilot program included seven apprentices who have all since successfully earned their Commercial Drivers License and learned the principles of safe equipment operation, excellent customer service, and efficient solid waste collection. The apprentices are currently assigned to a region where they are performing the full range of SWEO duties on assigned training routes. The current SWEO Apprentice Class is on target to successfully graduate at the end of February 2018.

Extensive outreach for the next SWEO Apprenticeship Class took place during the months of November and December. The SWEO Apprenticeship Program recruitment and associated event sessions were advertised through numerous outlets including My Brother's Keeper, the Human Resources, Public Works and Human Services departments, Arizona Department of Economic Security (i.e. Veteran Workforce, AZ@Work, Employment Centers), City social media, Zero Waste community events, various high school districts, and PHXTV. In December, staff from Public Works, Human Resources and LIUNA Local 777 hosted three informational sessions at the

City's Employee Driver Training Academy. These informational sessions attracted over 100 interested candidates.

Recruitment for the 2018-19 SWEO Apprenticeship Program is now closed with over 300 applicants. The selection process will take place during the month of February 2018 with an anticipated start date for the new SWEO Apprenticeship Class in early March 2018.

**Responsible Department**

This item is submitted by Deputy City Manager Karen Peters and the Public Works Department.