



City of Avondale

City Council Online Meeting

Tuesday, January 19, 2021

Mayor and Council

Kenneth Weise, Mayor

Veronica Malone, Vice Mayor

Tina Conde, Council Member | Pat Dennis, Council Member

Bryan Kilgore, Council Member | Curtis Nielson, Council Member

Mike Pineda, Council Member

Administration

Charles A. Montoya, City Manager

Gina Montes, Assistant City Manager

Tracy Stevens, Deputy City Manager | Cherlene Penilla, Deputy City Manager

Nicholle Harris, City Attorney | Marcella Carrillo, City Clerk

Online Meeting

Join the meeting and view presentations: <https://avondaleaz.zoom.us/j/3083557784>

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Join the meeting with audio only: Call 301-715-8592 (meeting ID: 308 355 7784)



City Council Online Meeting
Notice & Agenda
Tuesday, January 19, 2021

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WORK SESSION

6:30 PM

CALL TO ORDER BY MAYOR

1. ROLL CALL BY THE CITY CLERK

2. CITY'S 2021 STRATEGIC PLAN

City Council will review the final draft of the Five-Year Strategic Plan that will guide internal performance management and budget development and external service delivery. This item is for discussion only.

3. ADJOURNMENT

Request to Speak: Anyone wishing to address the Council regarding items listed on the agenda or under unscheduled public appearance should email their comments to CityClerk@AvondaleAZ.gov prior to consideration of that agenda item.

REGULAR MEETING

7:00 PM

CALL TO ORDER BY MAYOR PLEDGE OF ALLEGIANCE & MOMENT OF REFLECTION

1. ROLL CALL AND STATEMENT OF PARTICIPATION BY THE CITY CLERK

2. UNSCHEDULED PUBLIC APPEARANCES

(Limit three minutes per person. Please state your name.)

3. RECOGNITION ITEMS

a. EXCEPTIONAL STUDENT OF AVONDALE RECOGNITION (AVI STAR STUDENT)

The Mayor and City Council will recognize Avondale students from all six school districts located in Avondale for their character and achievement. This item is for discussion only.

4. CONSENT AGENDA

Items on the consent agenda are of a routine nature or have been previously studied by the City Council at a work session. They are intended to be acted upon in one motion. Council members may pull items from consent if they would like them considered separately.

a. MINUTES

City Council will consider a request to approve the December 7, 2020 City Council Meeting Minutes. The Council will take the appropriate action.

b. RESOLUTION 1006-0121 - COUNCIL CODE OF CONDUCT

City Council will consider a request to adopt Resolution 1006-0121, approving a Code of Conduct outlining the standards of conduct for councilmembers when representing the City of Avondale. The Council will take the appropriate action

c. PRESENTATION OF THE AUDIT REPORT

City Council will consider a request to accept the City's Comprehensive Annual Financial Report and the results of the annual audit for the fiscal year ended June 30, 2020. The Council will take appropriate action.

d. SIXTH AMENDMENT TO JOB ORDER CONTRACT - SCHOFIELD CIVIL CONSTRUCTION AND BUDGET TRANSFER REQUEST - RILEY LIFT STATION RELOCATION

City Council will consider a request to approve an amendment to job order contract number 19-097C with Schofield Civil Construction, LLC, adding job order number six (6) for the construction of the Riley Drive Wastewater Lift Station in the amount of \$738,611; approve a budget amendment in the amount of \$340,000; and authorize the Mayor, or City Manager and City Clerk to execute the necessary documents. The Council will take appropriate action.

e. RESOLUTION 1003-0121 - AMENDMENT TO THE INTERGOVERNMENTAL AGREEMENT WITH MARICOPA COUNTY ADMINISTERED BY THE HUMAN SERVICES DEPARTMENT

City Council will consider a request to adopt Resolution 1003-0121, approving an amendment to an Intergovernmental Agreement with the Maricopa County Human Services Department for the provision of the Community Action Program (CAP) services, and authorize the Mayor or City Manager and City Clerk to execute the necessary documents. The Council will take appropriate action.

f. RESOLUTION 1004-0121 - FOURTH AMENDMENT TO THE INTERGOVERNMENTAL AGREEMENT WITH THE CITY OF PHOENIX FOR RECYCLING SERVICES

City Council will consider a request to adopt Resolution 1004-0121, authorizing the Fourth Amendment to the Intergovernmental Agreement with the City of Phoenix for recyclable materials processing services and authorize the Mayor, or City Manager and City Clerk to execute the necessary documents. The Council will take the appropriate action.

g. ORDINANCE 2003-0121- SIXTH AMENDMENT TO THE OFFICE LEASE WITH THE UNIVERSITY OF MEDICAL SCIENCES ARIZONA

City Council will consider a request to adopt Ordinance 2003-0121, approving the Sixth Amendment to the Office Lease with the University of Medical Sciences Arizona to remain in the space on a month to month lease until June 30, 2021 and authorize the Mayor or City Manager, City Attorney and City Clerk to execute the necessary documents. The Council will take appropriate action.

h. ORDINANCE 2004-0121 - DEDICATION OF PUBLIC UTILITY EASEMENT (PUE) FROM THE PENDERGAST SCHOOL DISTRICT

City Council will consider a request to adopt Ordinance 2004-0121, authorizing the dedication of a Public Utility Easement (PUE) on Palm Lane from 118th Avenue to 116th Drive adjacent to Canyon Breeze Elementary School, owned by the Pendergast School District No. 92, and authorize the Mayor or City Manager, City Attorney and City Clerk to execute the necessary documents. The Council will take appropriate action.

i. ORDINANCE 2005-0121 - RECREATIONAL MARIJUANA REGULATIONS - CHAPTER 15 OF AVONDALE CITY CODE

City Council will consider a request to adopt Ordinance 2005-0121, amending Chapter 15 of the Avondale City Code relating to the regulation of recreational marijuana and authorize the Mayor or City Manager, City Attorney and City Clerk to execute the necessary documents. The Council will take appropriate action.

j. ORDINANCE 2006-0121 - DECLARING AS A PUBLIC RECORD AND ADOPTING THE AVONDALE AMENDMENTS TO THE 2018 INTERNATIONAL FIRE CODE.

City Council will consider a request to adopt Ordinance 2006-0121 declaring the 2018 International Fire Code and the 2021 Avondale Specific Amendments to the 2018 International Fire Code as public record and adopt them by reference and authorize the Mayor or City Manager, City Attorney and City Clerk to execute the necessary documents. The Council will take appropriate action.

k. PENA MINOR LAND DIVISION - 1ST STREET AND HARRISON DRIVE - APPLICATION PL-20-0252

City Council will consider a request by Mr. Miguel Pena, of Dynamic Homez LLC, for approval of a Minor Land Division (MLD) to split an existing single lot into two (2) separate lots and dedicate public utility easements along Harrison Drive and 1st Street. The site is approximately 0.4 gross acres in size and located at the southwest corner of 1st Street and Harrison Drive. The Council will take the appropriate action.

5. REGULAR AGENDA

a. **PUBLIC HEARING - REQUEST OF WITHDRAW OF APPLICATION PL-20-0167 - ZONING TEXT AMENDMENT - SECTION 1303.B MEDICAL MARIJUANA DISPENSARY HOURS OF OPERATION**

City Council will consider a request to withdraw application PL-20-0167, a request by Ms. Lauren Niehaus, Harvest Health & Recreation, Inc., for a text amendment to the Zoning Ordinance, Section 1303.B (Medical Marijuana Uses/Requirements), extending the permitted hours of operation of medical marijuana dispensaries from 8:00 P.M. to 10:00 P.M. In a letter dated December 23, 2020, the applicant has requested a withdrawal of this item. The Council will take appropriate action.

b. **PUBLIC HEARING – RESOLUTION 1005-0121 AND ORDINANCE 2007-0121 – CITY OF AVONDALE MARIJUANA USES - APPLICATION PL-20-0260**

City Council will hold a public hearing and consider a request to adopt Resolution 1005-0121, declaring as a public record a document entitled City of Avondale Marijuana Uses Regulations, and adopt Ordinance 2007-0121, adopting the aforementioned document as Section 13 of the Zoning Ordinance and revising Sections 1 and 13 relating to Marijuana Uses. The Council will take appropriate action. The amendments to Avondale Zoning Ordinance Section 1 (Administration and Procedures) and Section 13 (Marijuana Uses), will allow for continued refinement of the Zoning Ordinance to address a recently approved ballot initiative related to marijuana establishments and clarify restrictions for marijuana related uses and operations. The Council will take appropriate action.

c. **FULTON HOMES ACCLAIM - PRELIMINARY PLAT - 99TH AVENUE AND THOMAS ROAD - APPLICATION PL-20-0198**

City Council will consider a request by Mr. Josh Hannon, EPS Group, Inc., for approval of a Preliminary Plat for Fulton Homes Acclaim, a proposed 581-lot single-family residential subdivision on approximately 153.20 gross acres at the northwest corner of 99th Avenue and Thomas Road. The Council will take appropriate action.

6. ADJOURNMENT

Council Members of the City of Avondale will attend either in person or by telephone conference call. Individuals with special accessibility needs, including sight or hearing impaired, large print, or interpreter, should contact the City Clerk at 623-333-1200 or TDD 623-333-0010 at least two business days prior to the Council Meeting.

Los miembros del Concejo de la Ciudad de Avondale participaran ya sea en persona o por medio de llamada telefonica. Personas con necesidades especiales de accesibilidad, incluyendo personas con impedimentos de vista u oido, o con necesidad de impresion grande o interprete, deben comunicarse con la Secretaria de la Ciudad at 623-333-1200 o TDD 623-333-0010 cuando menos dos dias habiles antes de la junta del Concejo.

CITY COUNCIL REPORT

SUBJECT: City's 2021 Strategic Plan

MEETING DATE: 1/19/2021

TO: Mayor and Council

FROM: Tracy Stevens, Deputy City Manager, (623) 333-1014

THROUGH: Gina Montes, Assistant City Manager, (623) 333-1012

REVIEWED: Charles A. Montoya, City Manager, (623) 333-1016

PURPOSE:

City Council will review the final draft of the Five-Year Strategic Plan that will guide internal performance management and budget development and external service delivery. This item is for discussion only.

BACKGROUND:

The City's Strategic Plan was adopted by the City Council in 2016 and was a 5-year plan. In mid-2020 the City hired Raftelis/Novak Group Consulting to bring the update to the 5-year plan, continue the long-term vision, and set new priorities that will serve as the basis for development of departmental goals, objectives, and resource allocation in the coming years.

The strategic planning process involved input from a broad group of internal and external stakeholders. A survey was provided, individual interviews were held with staff members, City management, and the Mayor and Council, and on August 27, 2020 a Community Summit was held via zoom with 35 participants from the community. In addition a staff retreat was held with City leadership, department directors, and assistant directors, and on September 11, 2020, City Council participated in a Strategic Plan Retreat led by the Novak Group as the consultant for the City.

DISCUSSION:

The updated 2021 Five-Year Strategic Plan will be used as a roadmap and tool for budgeting and resource allocation and policy-making. The strategic plan is designed as a flexible and "living" document that will be updated every five years.

The following seven Strategic Outcome Areas are identified in the plan:

1. Creative and Sustainable Community Development
2. Diverse Recreation and Entertainment Opportunities
3. Community Oriented Lifelong Learning Opportunities
4. Innovative Program and Service Delivery
5. Connected Community
6. Public Health and Safety

7. Natural Resources and Open Space

Each department provided input to ensure that each strategic outcome area and strategy is measurable and quantifiable. This updated plan is important because it aligns each department's work plan around a set of common strategies, and identifies the shared resources required to successfully achieve each goal.

Following approval of the plan staff will begin the second phase of the process with the implementation of the specific strategies outlined in the plan through the Strategy Blocks software application. Strategy Blocks will assist the City and staff in ensuring the management and execution of the plan through the tracking of its performance metrics.

Staff is seeking comments from Council over the next two weeks in preparation of finalizing the Strategic Plan in February. Staff will bring the plan back to Council for final adoption on February 16, 2021.

BUDGET IMPACT:

The Strategic Plan will guide the allocation of resources during future budget planning processes.

RECOMMENDATION:

This item is for discussion only.



2021 CITY OF AVONDALE

Strategic Plan

Avondale
Aspiring. Achieving. Accelerating.



AVONDALE

City Council & Leadership



Kenn Weise
Mayor



Veronica Malone
Vice Mayor



Mike Pineda
Council Member



Tina Conde
Council Member



Pat Dennis
Council Member



Bryan Kilgore
Council Member



Curtis Nielson
Council Member



Charles Montoya
City Manager

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Innovative Program and Service Delivery
Connected Community
Public Health and Safety
Natural Resources and Open Spaces

Letter from **City Manager, Charles Montoya**

On behalf of the City Council and Staff, I am pleased to present the 2021 City of Avondale Strategic Plan. The year 2021 marks the 75th Anniversary of Avondale's incorporation as a city. Avondale has come a long way since its humble beginnings as a farming community with one main street. Today, it's one of Metropolitan Phoenix's fastest growing cities, yet still characterized by its strong sense of community. Our population is young and diverse. Over the past several decades, residents and businesses have embraced Avondale for the community that it is, and they are excited for the tremendous potential in the growth and development that Avondale will face over the next few years.

The Avondale Strategic Plan sets us on a course for the future, with a five-year road map of aspiring but achievable goals. It is fitting that the Avondale Strategic Plan is rolled out during our Diamond Anniversary Year. Maintaining all that is unique and wonderful about our community today, while attracting new growth and development to the city, will require smart, innovative action from our local government working collaboratively with our residents, business and development community, and our many stakeholders.

The 2021 Avondale Strategic Plan was designed with the vision and guidance from the Avondale City Council, and crafted with input from engaged residents, local businesses and key personnel across the city's organization. The plan represents a cohesive and intelligent approach to continuing on the path to success for Avondale: to create a family-friendly and economically robust city that is *Aspiring, Achieving and Accelerating*, by an organization whose core purpose is all about *Making Lives Better*.

With that understanding of our Core Purpose, this strategic plan is built on seven major Strategic Outcome Areas that the City Council identified as priorities. Together they create a strong, coherent approach to achieving Avondale's overarching vision. These seven strategic areas encompass: 1. Creative and Sustainable Community Development; 2. Diverse Recreation and Entertainment Opportunities; 3. Community-Oriented Lifelong Learning Opportunities; 4. Innovative Program and Service Delivery; 5. Connected Community; 6. Public Health and Safety, and 7. Natural Resources and Open Spaces.

These Strategic Outcome Areas and the accompanying goals for each, will guide our city's work for the next several years. With numerous capital projects on the horizon and a long list of needs, the city will continue to forecast its revenues, manage its budget, and prioritize projects that are in the best interest of the city and its residents. The Strategic Plan will guide us in making the smartest decisions to achieve our goals.

I wish to thank the Mayor and City Council, our residents, local businesses and the hardworking professionals throughout our city's government for their participation, input and insights. Your engagement in this year-long process is a testament to your commitment to Avondale's long term success as we progress together into the future.



Charles Montoya

AVONDALE

By The Numbers



87,194
Population



47.4
Square Miles



1946
Year of
Incorporation



30
Median Age



11
City Parks



255
Acres of Parks
and Open Space



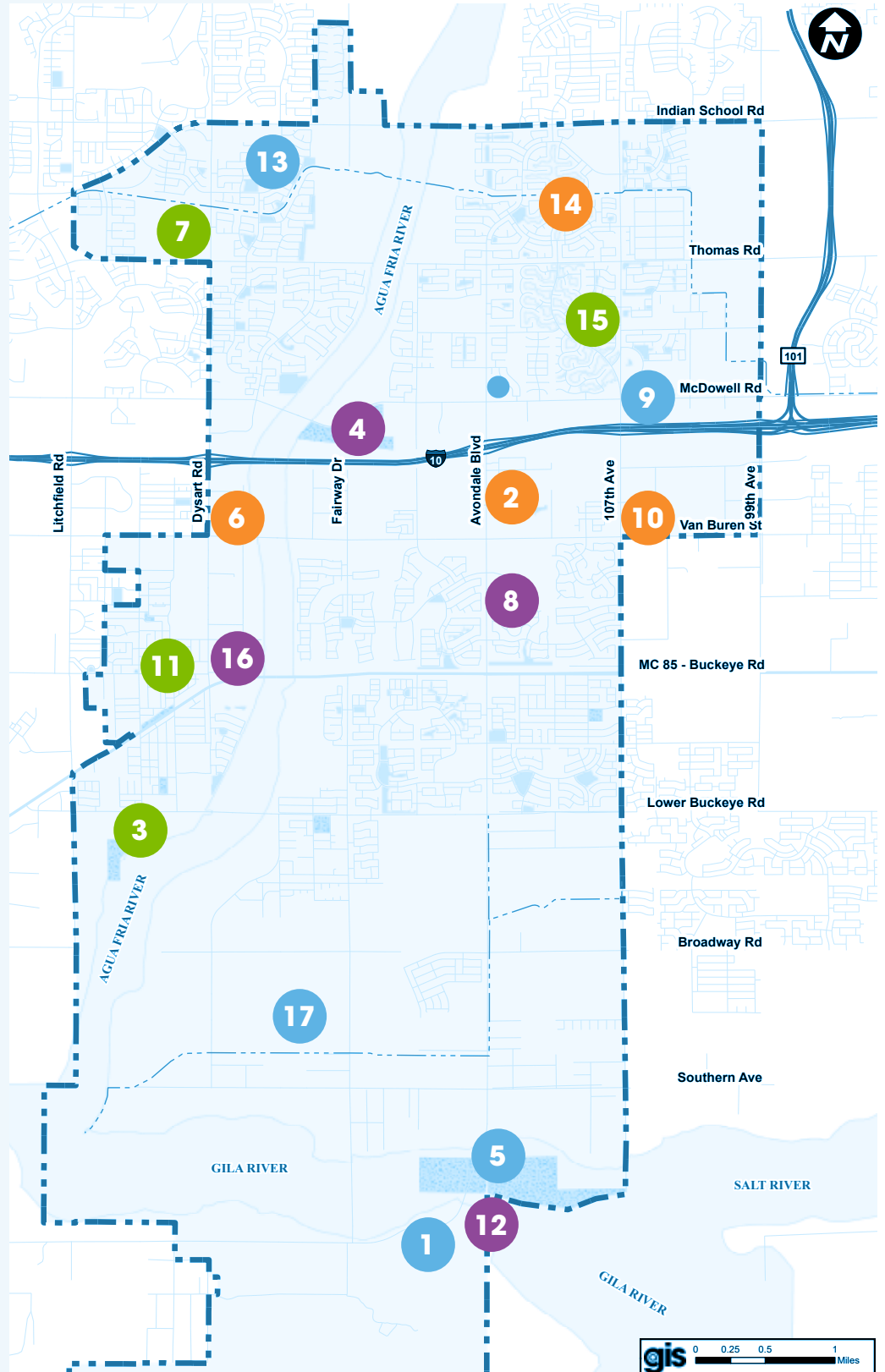
56.5%
College educated
workforce



\$58,938
Median Household
Income



26,637
Households





1
Phoenix Raceway



2
On The BLVD



3
Festival Fields



4
Friendship Park



5
Tres Rios Corridor / Base & Meridia Wildlife Area



6
Coldwater Golf Course



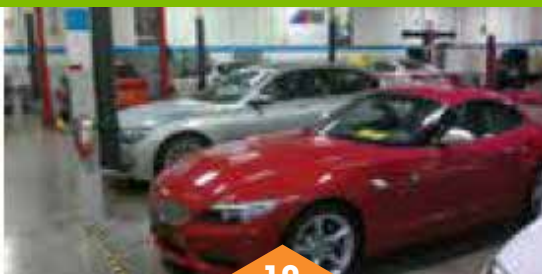
7
Estrella Mountain Community College



8
Civic Center Campus
Visitor and Conference Center



9
Health-Tech Corridor



10
Universal Technical Institute



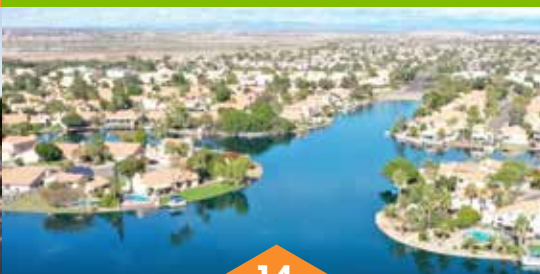
11
Historic Avondale



12
Monument Hill



13
Goodyear Farms Historic Cemetery



14
Garden Lakes



15
Crystal Gardens



16
Arizona Complete Health
Avondale Resource Center



17
Alamar Master Planned Community

Introduction

Avondale is a full-service municipal organization recognized for its core values of being helpful, kind, and professional, and has a successful history of delivering quality service to its residents and business community, while maintaining a forward-thinking innovative culture.

The city is a keystone community in the Phoenix metropolitan area that has established itself as a manufacturing and healthcare hub as well as a world-class sports and entertainment destination. The city has welcomed a consistent influx of small businesses and large corporations that bring with them high-wage jobs, and Avondale's unique blend of big-city amenities and small-town warmth have been key to attracting this new group of highly skilled and well-educated residents. Rapid residential development in Avondale during the national housing boom in the 1990s and early 2000s quickly transformed what had been a farming community into a major suburb of Phoenix. This accelerated growth brought the population from just 8,000 in 1980 to over 87,000 in 2020.

The Historic Avondale area along Western Avenue preserves the historic business district and safeguards opportunities for small, independent businesses. The public art installations around Avondale and the family-friendly community events hosted by the city create a welcoming cultural environment. From events such as Cycle Avondale, to the Tres Rios Nature Festival, to Billy Moore Days, the events celebrate and highlight the communities, businesses, facilities, and natural environment of the city.

Once an important supply stop for travelers heading west, Avondale is now a destination for many entertainment and recreation options in the Phoenix area. Nearby Estrella Mountain Regional Park and Avondale's 255 acres of parks and open space provide residents and visitors with dedicated places to exercise, fish, skate, play, and gather. Avondale is home to the Phoenix Raceway, which hosts two NASCAR race weekends annually, and the American Sports Center, which is the largest multi-sports facility in the state and



welcomes more than 500,000 visitors to its soccer, volleyball, and basketball facilities every year.

Of the many contributing factors that make Avondale a great place to live, work, and invest is the wide range of educational and healthcare opportunities. Avondale is home to Estrella Mountain Community College (EMCC), Rio Salado College, Universal Technical Institute, and Empire Beauty School; as well as six school districts to include both elementary and high schools. The well-known Health Tech Corridor also boasts top notch medical care to include Phoenix Children's Hospital Southwest Valley Specialty Care Center and the recently built AKOS medical offices.

Avondale recently broke ground on a 21,500 square foot combined city executive office building, visitor center, and conference center that opens up to an outdoor plaza for special events. The City of Avondale Executive Offices/Conference & Visitor Center will support Avondale's tourism initiatives as

part of the recently launched Visit Avondale program, to promote the City as a destination for racing, youth sports, eco-tourism, festivals and more. Meanwhile, the Conference Center, the first of its kind in the city, will serve as an attractive venue for meetings, conferences, and social events. The BLVD, located just north of the Civic Center along the I-10 Corridor, is planned to be the city's hub for entertainment, residential, shopping, dining, youth sports, and hospitality.

Through decades of transformation and growth, the local government has remained dedicated to engaging citizenry, governing transparently, and preserving the sense of community, pride, and optimism residents feel about Avondale.



Strategic Planning Process



Avondale's strategic planning process was designed to assure:

- A shared vision of the city's ultimate goals. Organizations driven by clear purposes and shared values have a greater capacity to succeed than those that are not.
- A collective understanding of the available resources, the environment, and the principles upon which strategies will be based.
- Acceptance of the direction and urgency of the strategic plan, which will be integrated into the way the city is operated on a day-to-day basis.

To achieve these conditions for success, Avondale's strategic planning process involved input from a broad group of internal and external stakeholders. Major elements of the process included:

- Review of the progress made against the city's 2016 Strategic Plan
- Interviews and a work session with Avondale's Mayor and City Council
- Interviews and a work session with the City Manager, Deputy City Manager, Assistant City Manager, and Department leadership
- A virtual community summit with 35 participants

This input was used to update the outcome areas and the strategies from Avondale's 2016 Strategic Plan, which were then reviewed and refined by the City Manager's Office.

City of Avondale Community Summit

We RELY on AVONDALE for...



for...

PLAN for HOMELESS

SAFE & ENJOYABLE PLACE to LIVE

GROWTH PLAN

FIRE & POLICE PROTECTION

MORE BOOKS at LIBRARY

SAFE ROADS

CARE for ALL RESIDENTS

true TODAY...

SAFE

GREAT COUNCIL and STAFF

AFFORDABLE

WATER

OPEN SPACE

FESTIVALS and ACTIVITIES

NASCAR

SMALL TOWN FEEL

QUIET



true in 10 YEARS

MASS TRANSIT

MORE JOBS in WEST VALLEY

IN-FILL & STAGNATE VACANCIES ADDRESSED

MALL & WHOLESALE GROCERY

CHILDREN WILL LIVE BETTER

SOUTH VALLEY PARK

PLAN to SOLVE HOMELESSNESS

August 27, 2020

the STRATEGIC INITIATIVES

INTER GENERATION COMMUNITIES

RISE IN RECYCLING COSTS

WATER is CRITICAL

SLOW TRAFFIC DOWN

RESOURCES for SOUTHERN PART

INTERNET INFRASTRUCTURE

GREENERY IMPORTANT to SUSTAINABILITY

AFFORDABLE HOUSING

FOCUS on DIVERSITY

AIR QUALITY

EXPAND COMMUNITY PARTNERS

KEEP the COMMUNITY INVOLVED



The Novak Consulting Group

A PART OF

RAFTELIS



**Avondale
is Aspiring.
Achieving.
Accelerating.**



Vision

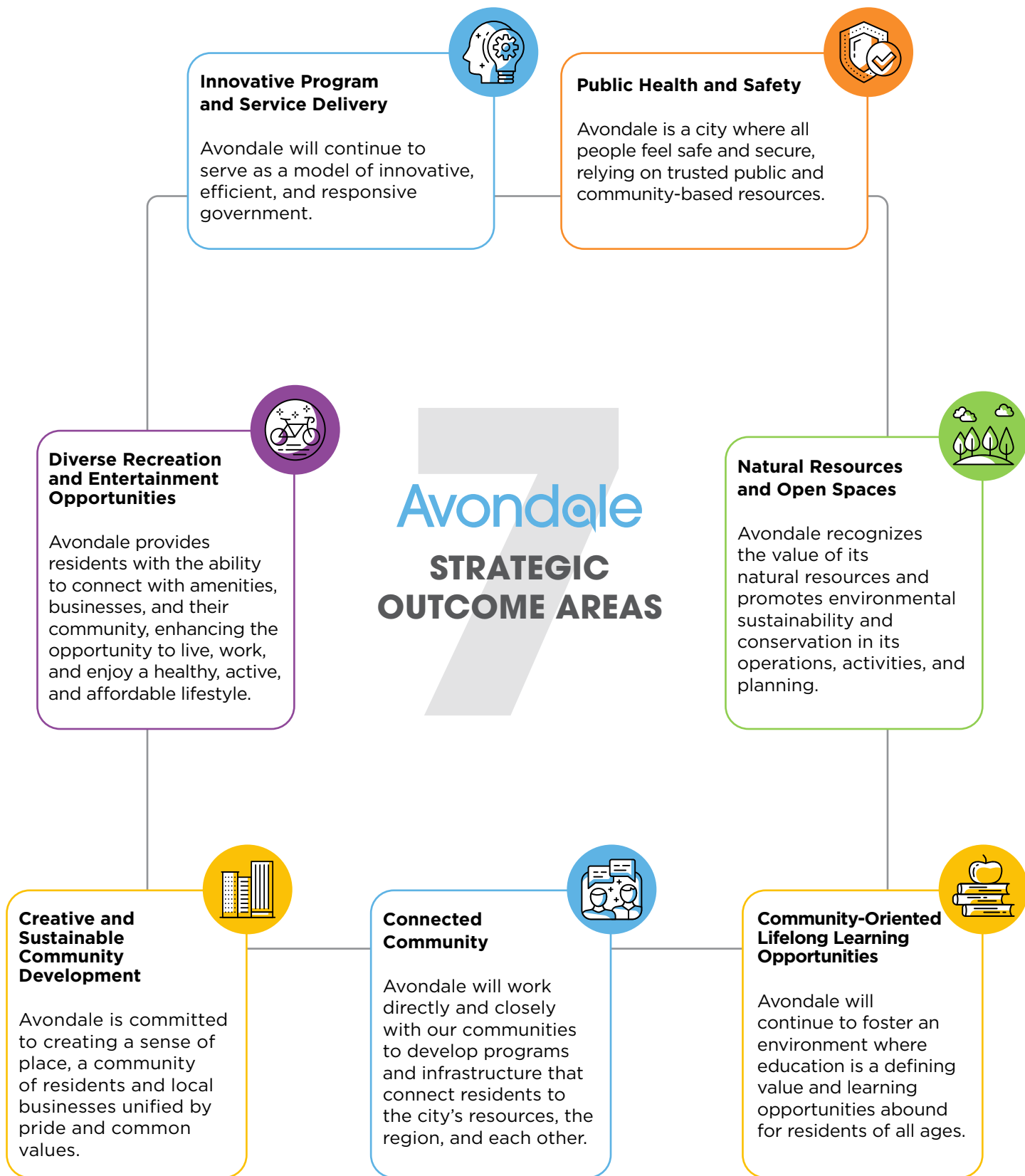
Avondale, Arizona is a community where people share a deep sense of pride in what has been accomplished and how far we have come. In Avondale, there is a strong belief that the blending of a broad spectrum of cultures comes from a true sense of harmony throughout the community. Here, people and businesses are welcomed with open arms and supported in a way that exemplifies a dynamic, intelligent, and driven city, ready to take on the future.

Core Purpose

Making Lives Better

Core Values

**Helpful
Kind
Professional**





Creative and Sustainable Community Development

Avondale is committed to creating a sense of place, a community of residents and local businesses unified by pride and common values.

Avondale's focus is to continue to grow and maintain a family-friendly environment, which has driven thoughtful resource investment in community development and programs to foster neighborhood livability.

Economic development is also a key focus area for the city, with one of the most significant projects being The BLVD, which was formerly known as the Avondale City Center. When completed, The BLVD will cover 356 acres and be comprised of six trendy districts for shopping, dining, entertainment and living, incorporating pedestrian-friendly streets and outdoor activities.

The city recognizes the importance of strong neighborhoods and actively works to preserve and support the vibrant cohesiveness of the community. Avondale is dedicated to promoting sustainable development patterns such as ensuring there is a choice of quality housing that is affordable to a broad range of income levels. The city also continues to enhance landscape designs and tree coverage, and increasing pedestrian connections and multi-modal options.

The strategies encapsulated in the 2021 plan build on recent successes and help to ensure that the community remains thriving and sustainable.

Strategies

1. Plan for development south of the Estrella Mountains
2. Develop diverse housing options, to include workforce housing
3. Invest in the revitalization of Historic Avondale
4. Increase sustainability initiatives
5. Maintain and expand quality infrastructure and improve connectivity to city amenities





Diverse Recreation and Entertainment Opportunities

Avondale provides residents with the ability to connect with amenities, businesses, and their community, enhancing the opportunity to live, work, and enjoy a healthy, active, and affordable lifestyle.

Part of continuing to grow and maintain a family-friendly environment relies on cultivating and promoting a rich and diverse portfolio of recreational and entertainment options.

In the city's 2016 Strategic Plan, this included being known and promoting Avondale, providing multi-generational recreation events and programs, pursuing private development of sports, entertainment, and hospitality amenities, and establishing creative community spaces throughout the city. Considerable progress has been made in this area over the last few years. For example, Festival Fields was expanded by more than 30 acres, to include a new skate park and pump track, ball fields, a lake for fishing, and other community amenities. The Phoenix Raceway also underwent a significant renovation and hosted the NASCAR Championship Weekend in 2020.

The new strategies listed below, as well as the city's forthcoming Tourism Plan, build on recent successes and help to ensure that the community is known and that residents have the opportunity to enjoy a healthy, active, and enjoyable lifestyle.

Strategies

1. Increase visitor traffic to Avondale's entertainment, recreation, conference, and hospitality venues.
2. Develop new recreation and entertainment options, as well as signature events and programs
3. Promote community's health, wellness, active lifestyle, and social connectivity





Community-Oriented Lifelong Learning Opportunities

Avondale will continue to foster an environment where education is a defining value and learning opportunities abound for residents of all ages.

Avondale's population is family-oriented, active, and engaged, which has led the city to prioritize opportunities for educational enrichment at all stages of life.

Avondale's 2016 Strategic Plan specifically focused on strengthening education and faith-based partnerships, expanding employment through job training and placement programs, and supporting school readiness for children. This focus led to several key initiatives, including support for youth development programs, like the Avondale Youth Advisory Commission, the Junior Service-Learning Club, and Kids at Hope, and a partnership between the Avondale Public Library and the online tutoring service Brainfuse to offer all cardholders access to free after-school homework help and virtual tutoring services. Avondale also collaborates with educational partners, like EMCC and UTI on job placement and other programming.

The strategies listed below enhance the work of the 2016 Strategic plan and help to ensure that opportunities for lifelong learning remain a cornerstone of the community.

Strategies

1. Work with community partners to expand employment opportunities for residents through job training and placement program
2. Strengthen education-based partnerships
3. Update facilities and spaces with technology, equipment, and public art
4. Create diverse public awareness and education campaigns, focusing on a variety of topics





Innovative Program and Service Delivery

Avondale will continue to serve as a model of innovative, efficient, and responsive government.

Avondale's growth has been explosive over the last 30 years, which has required a nimble and effective governing strategy to ensure that the city's resources are deployed in an impactful way.

Avondale's 2016 Strategic Plan highlighted the city's need to improve internal and external service delivery, to expand its financial toolbox by leveraging funding sources and incentives and encouraging a flexible environment to be responsive to market trends. These needs led to a number of initiatives, including the city better using data to increase efficiency, launching an electric fleet initiative in its Public Works Department, and partnering with the City of Phoenix in 2019 to increase its water supply and support further economic growth.

Another example of the city's innovative programming is the Local EDGE Program, which delivers educational opportunities, networking events, and access to resources that support Avondale businesses' growth and offer professional development opportunities for owners and employees. The Local Edge Program celebrates Avondale's business community through groundbreakings, grand openings, and the annual Leading EDGE business awards, which recognize businesses that have made significant contributions to the Avondale community and economy.

The City of Avondale is the first in the valley to implement a fish hatchery, called the Avondale Aquaculture Program, which grows tilapia and stocks them in a series of lakes surrounding the Crystal Gardens neighborhood. The tilapia eat the algae and debris, thereby helping to protect water quality.

The strategies listed below enhance the work of the 2016 Strategic plan and help to ensure that the city continues to deliver efficient and effective programs and services to the community.

Strategies

1. Improve internal and external customer service delivery through streamlined processes and data-based programming
2. Effectively utilize technology to enhance communication and access to City services
3. Leverage strategic partnerships to expand community outreach opportunities
4. Ensure responsible financial planning to support City operations and the capital improvement program
5. Attract, retain, and develop a diverse and competitive workforce to meet the needs of the residents and business community.





Connected Community

Avondale will work directly and closely with our communities to develop programs and infrastructure that connect residents to the city's resources, the region, and each other.

For Avondale and the United States, COVID-19 has highlighted the importance of ensuring access to government resources and connectivity to those around us. Effective cities rely on transparency, collaboration, fiscal responsibility, talented employees, and of course, community involvement.

Avondale's 2016 Strategic Plan included strategies to promote community engagement through civic education, provide outlets for residents and businesses to engage in volunteer opportunities, and use technology to connect residents to business, government, and community opportunities. This focus led to more than 50 residents graduating from the Avondale Citizens' Leadership Academy Program; hundreds of thousands of riders using the Zoom bus system, which provides access to shopping, Historic Avondale, Festival Fields, the Avondale Civic Center Library and Sam Garcia Library, the Avondale Community Center, and schools; and increased access to public WiFi at city amenities. The city has also partnered on the new Arizona Complete Health Avondale Resource Center, which provides a variety of human services for community, youth, and senior programs.

The strategies listed below enhance the work of the 2016 Strategic plan and help to ensure that the city continues to help the community to connect at all levels.

Strategies

1. Expand community engagement opportunities through volunteerism, civic education, and service learning
2. Collaborate with the Avondale business community to encourage partnerships and develop program ambassadors
3. Expand access and communication infrastructure to more City facilities and amenities
4. Protect the City's physical and virtual infrastructure against increased cyber security threats



Public Health and Safety

Avondale is a city where all people feel safe and secure, relying on trusted public and community-based resources.

The city's growth and family-friendly environment relies on promoting safety and security for residents' well-being, quality of life, and economic prosperity.

While the city's 2016 Strategic Plan did not explicitly call out public health and safety as an outcome area, one of the strategies under fostering sustainable community development was to maintain community safety for businesses and residents. Substantial progress has been made in this area over the last few years, with the city's new Emergency Operations Center being brought online in 2019 and the development of the Care1st Avondale Resource Center, which is the result of a public-private partnership to help families by offering a variety of human services.

The new strategies listed below will bolster public health and safety, while ensuring that the city is resilient and prepared to mitigate emergencies that arise.

The City utilizes a Joint Police/Fire Mobile Command Vehicle used for Special Events and Emergency Incidents. The Police Department expanded their presence in the community by adding a substation along Central Ave in Historic Avondale which houses the Community Action Team, Special Crimes detectives, and the School Resource Officers and also opened another substation in the fire station at 107th Ave and McDowell staffed by two patrol squads. The new Fire Administration offices opened on the Civic Center Campus and the main police station was expanded with a new property and evidence area as well as new office space and a parking lot.

Strategies

1. Work to protect Avondale's most vulnerable communities
2. Connect residents with safety resources and engage the community around crime prevention
3. Enhance enforcement efforts to reduce property crimes within the City
4. Partner with key stakeholders to implement integrated community health and wellness programs
5. Continue to deploy comprehensive emergency preparedness strategies





Natural Resources and Open Spaces

Avondale recognizes the value of its natural resources and promotes environmental sustainability and conservation in its operations, activities, and planning.

Avondale has considerable nature-based recreational amenities and open spaces, as well as a deep desire to preserve its natural resources and foster sustainable operations.

Though Natural Resources and Open Spaces was not an outcome area in Avondale's 2016 Strategic Plan, the value of the city's outdoor spaces and the need for sustainable resource use was a theme that was woven throughout the plan. This value drove several major initiatives with positive environmental outcomes, including:

- 675,000 people visited Avondale's 255 acres of parks and open spaces in 2019
- 950 tons of green waste composted/recycled in 2019
- 5,210 tons of recycling diverted from the landfill in 2019

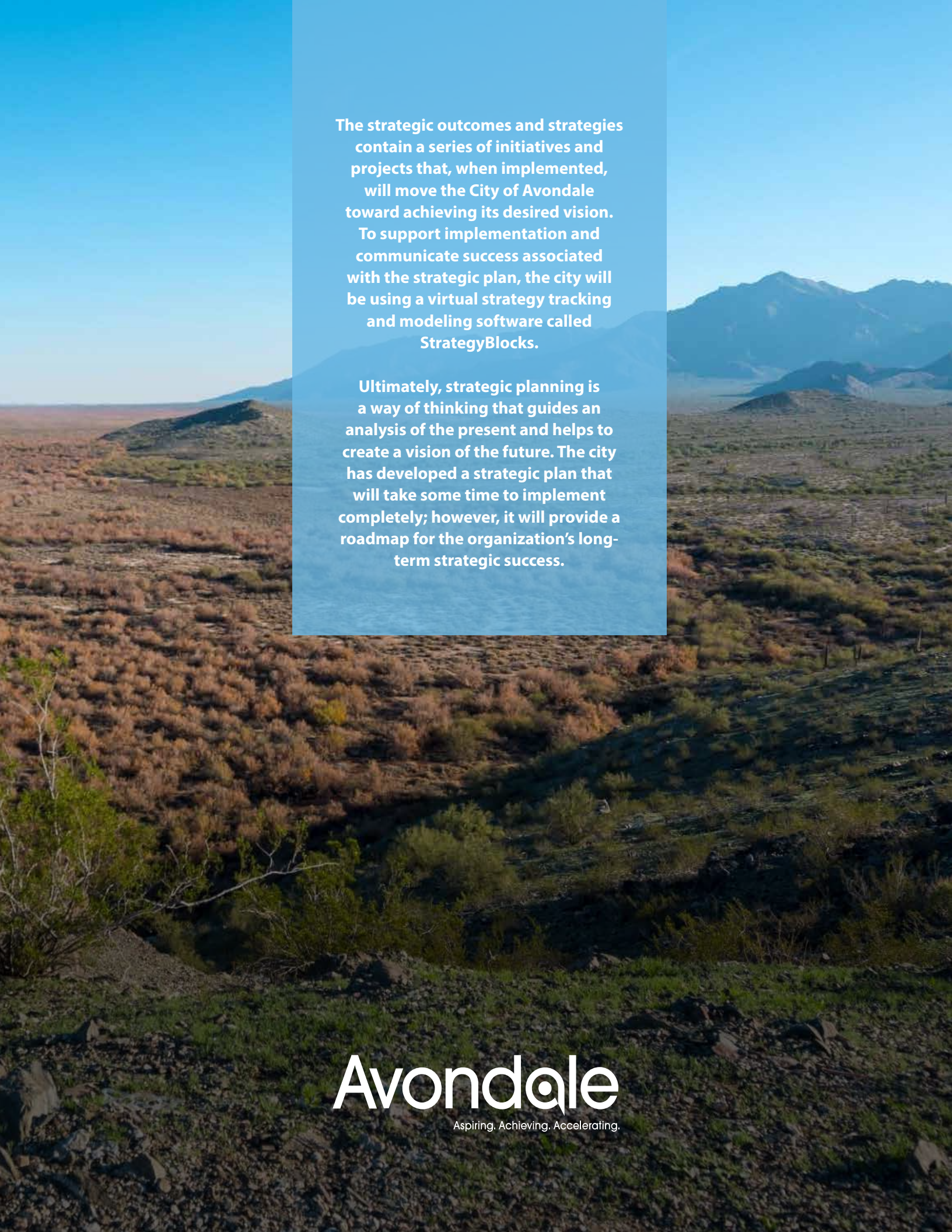
Additionally, Avondale has developed environmental campaigns, such as One Less, which aims to reduce wasted items, offers a Green Business Certification, and has a mobile app designed to reduce air pollution. Avondale is also part of the Lower Gila River Collaborative, which is a growing cooperative effort to restore natural resources along the lower Gila River, improve access to nature-based recreation, and promote the river as an amenity in the West Valley.

The strategies listed below enhance the work of the 2016 Strategic plan and help to ensure that opportunities for lifelong learning remain a cornerstone of the community.

Strategies

1. Promote and expand Avondale's natural assets such as parks, trails, rivers, and wilderness areas to residents, visitors, and businesses
2. Preserve and revitalize river areas and natural urban interfaces
3. Encourage resource conservation and other sustainable practices throughout municipal operations





The strategic outcomes and strategies contain a series of initiatives and projects that, when implemented, will move the City of Avondale toward achieving its desired vision. To support implementation and communicate success associated with the strategic plan, the city will be using a virtual strategy tracking and modeling software called StrategyBlocks.

Ultimately, strategic planning is a way of thinking that guides an analysis of the present and helps to create a vision of the future. The city has developed a strategic plan that will take some time to implement completely; however, it will provide a roadmap for the organization's long-term strategic success.

Avondale

Aspiring. Achieving. Accelerating.



CITY COUNCIL REPORT

SUBJECT: Exceptional Student of Avondale Recognition (Avi Star Student)

MEETING DATE: 1/19/2021

TO: Mayor and Council

FROM: Christopher Lopez, Neighborhood and Family Service Director, (623) 333-2711

THROUGH: Cherlene Penilla, Deputy City Manager, (623) 333-2214

REVIEWED: Charles A. Montoya, City Manager, (623) 333-1016

PURPOSE:

The Mayor and City Council will recognize Avondale students from all six school districts located in Avondale for their character and achievement. This item is for discussion only.

BACKGROUND:

The Avi Star Student recognition goes to an Avondale student who is to be recognized for their achievements. The achievement may be academic, extracurricular or personal and highlights the impact the student has made for themselves, their family, school, or community.

DISCUSSION:

Avondale students will be recognized for their character and achievement.

BUDGET IMPACT:

None.

RECOMMENDATION:

This item is for information and discussion only.



CITY COUNCIL REPORT

SUBJECT: Minutes

MEETING DATE: 1/19/2021

TO: Mayor and Council

FROM: Marcella Carrillo, City Clerk, (623) 333-1214

THROUGH: Cherlene Penilla, Deputy City Manager, 623-333-1015

REVIEWED: Charles A. Montoya, City Manager, (623) 333-1016

PURPOSE:

City Council will consider a request to approve the December 7, 2020 City Council Meeting Minutes. The Council will take the appropriate action.

BACKGROUND:

n/a

DISCUSSION:

n/a

BUDGET IMPACT:

This item has no budget impact.

RECOMMENDATION:

Staff recommends City Council approve the December 7, 2020 City Council Meeting Minutes.

MINUTES OF THE AVONDALE CITY COUNCIL
CITY OF AVONDALE, ARIZONA
ONLINE MEETING
December 7, 2020

A **Work Session** of the City Council of the City of Avondale, Arizona was convened using the Zoom Cloud Meeting platform in open and public session at 6:01 p.m. All participants attended by phone or video.

Members Present: Vice Mayor Pat Dennis; Council Members Tina Conde, Bryan Kilgore, Veronica Malone, Curtis Nielson, and Mike Pineda.

Members Absent: Mayor Kenn Weise.

Other Municipal Officials Present: Charles Montoya, City Manager; Gina Montes, Assistant City Manager; Tracy Stevens, Deputy City Manager; Cherlene Penilla, Deputy City Manager; Nicholle Harris, City Attorney; Marcella Carrillo, City Clerk; Cindy Blackmore, Public Works Director; Jessica Blazina, Intergovernmental Affairs Administrator; Ken Chapa, Economic Development Services Director; Lindsey Duncan, Finance and Budget Director; Craig Jennings, Judge; Bryan Hughes, Parks and Recreation Director; Chris Lopez, Neighborhood and Family Services Director; Callie McGraw, Interim Human Resource Director; Kevin Murphy, Development and Engineering Services Director; Dale Nannenga, Police Chief; Abril Ruiz-Ortega, Court Administrator; Jeffrey Scheetz, Chief Information Officer; and Pier Simeri, Marketing and Public Relations Director.

Audience: One member of the public was present.

1. ROLL CALL BY THE CITY CLERK

2. SPECIFIC AREA PLAN FOR OLD TOWN, CASHION, AND LAS LIGAS/RIO VISTA (APPLICATION PL20-0056)

City Council discussed application PL-20-0056, a City initiated request to prepare a Specific Area Plan for the areas of Old Town, Cashion, and Las Ligas/Rio Vista. The Plan is to reflect evolving economic development and planning conditions to attract new businesses and residential development to these areas. The intent of the Plan is to reflect the City's current level of expectation for revitalization in the next several years in the three areas

Kevin Murphy, Director of Development and Engineering Services, stated that the plan was completed this past summer, but the presentation was delayed due to the pandemic. After discussion with business owners in the community, the suggestion is to call the area Old Town, rather than Historic Avondale which will require City Council approval in the future. This plan will serve as a guidebook to provide a vision for the area in terms of redevelopment and revitalization. The three areas included are a combined total of 1,861 acres with the City owning 59.4 acres within the area. The plan encourages new development and new businesses to create an economically thriving destination.

Presentation by Jodie Novak, Assistant Director of Development and Engineering Services, addressed the contents of the plan, which identifies three districts: Old Town, Cashion, and Las Ligas/Rio Vista. The plan focuses on ways to help the areas thrive while promoting growth. She stated the plan will focus on gateway intersections and focus areas. Gateway intersections are areas that create a sense of arrival and include gateway entry identifiers. Key focus areas are properties owned by the City that have potential opportunity for future development located in residential, commercial, and industrial areas within the community.

Council Member Malone asked whether gateway intersections suggested by community members and PRS group will be utilized. Ms. Novak confirmed that the suggested areas were derived based on discussions at community meetings and with residents and business owners. Council Member Malone asked if there is a list of people who stated they would like the name changed from Historic Avondale to Old Town and whether those individuals were invited to this Council meeting. Ms. Novak stated that there were two large community meetings in March and attendees were asked to fill out a survey of the areas. Staff also spoke with various business owners, neighborhood representatives, and residents in those areas to include tours in the area. Based on significant feedback, business owners and residents refer to the area as Old Town, even though there are some families who still call it Historic Avondale. Following those discussions and working with staff internally, it is felt that the preferred version would be Old Town when referring to this area. There was no opposition received during the process. In terms of informing the residents, businesses, and stakeholders regarding tonight's meeting, staff does not do specific advertising for work sessions. However, as agendas are prepared for next steps (public hearings), there will be notifications and postcards sent to stakeholders. Only two people have continually followed up on the process, based on personal interests with their own property.

Ms. Novak identified the areas on the map that serve as the gateway intersections to the three defined areas. The focus for these City-owned properties includes potential future opportunities to stimulate growth. Examples were reviewed. The proposed uses would have to be evaluated to determine highest and best use. Some parcels may have land use limitations. City staff would have to further vet those restrictions, processes, and limitations. Creative design examples were reviewed for gateway intersections. Potential concepts for the area currently occupied by the police station were reviewed, in the event it was ever relocated. This includes the potential for a gathering and a mercado.

The Old Town Avondale Business District is a zoning overlay which applies to single family residences in existence in the community. An area identified in red is residential and can be considered for conversion to a commercial use, such as boutique, coffee shop, café, or bed and breakfast. There is discussion regarding how to add more homes to this area to give property owners the opportunity for such a conversion. A potential redrawing of the boundaries was reviewed.

In terms of Cashion, there is one City-owned property in the area (6,300 square feet) at the southeast corner of 111th Avenue and 4th Street. Feedback from this community reflects a desire to have a hub for families and children, including a small local park. The

plan includes a small park with a splash pad, lawn, and outdoor space. The space will also be used to host community gathering events.

There are no City-owned properties in Las Ligas/Rio Vista; however, there is a heavy amount of privately owned lots zoned for residential. With the development of Alamar, it is hoped that this will spur individual landowners to build up their properties in this area as well. Las Ligas Park features many amenities and a key City-owned property in the area.

Placemaking strategies were reviewed, including:

- Wayfinding Signage
- Neighborhood Signage
- Marketing/Events
- Art
- Community Engagement
- Public Infrastructure
- Land Use and Zoning
- Public Safety

Development form focuses on site planning and building design aspects, which includes:

- Site Design
- Landscape Design
- Building Architecture
- Signage
- Public
- Art/Beautification
- Open Space
- Light Fixtures

Mr. Murphy reviewed recent investments in Old Town, including:

- Marbella Park Single-Family Subdivision
- Southwest Lending Closet Business Expansion
- Avondale Townhomes on Dysart
- Crystal Cove Apartments
- Kazi's Gas Station
- Infill custom homes
- Hillcrest Villas Apartments

The City has made significant investments in revitalization neighborhoods, with approximately \$25 million to street investments and \$30 million to future capital improvement investments. Future improvements will include Historic Avondale Infrastructure Improvements and improvements to Western Avenue. Examples of improvements were reviewed. Ms. Novak reviewed next steps, including public meeting dates for 2021.

Council Member Pineda stated he would like to have more information on the feedback received for the name change from Historic Avondale to Old Town. He addressed support for the roundabout for Western Avenue for increased safety in the area. He inquired as to restrictions for development of properties on Hill Drive. Ms. Montes stated that the properties on Hill Drive were acquired using the neighborhood stabilization program funds granted to the City from the Department of Housing and Urban Development (HUD) during the foreclosure crisis. Housing is allowed on the lots but there will be income restrictions. Additional research is required to determine allowable commercial uses. Council Member Pineda stressed the need for greater defined parameters for affordable housing as well as accessibility to low income housing options. He is interested in receiving more information regarding the boundary changes for the OTAB area. He supports use of the string lights to create a vibrancy in specific areas. He suggested exploring the possibility of allowing restaurants to expand their eating areas to the parking lots while the pandemic is still active.

Council Member Nielson agreed with the roundabout concept; however, he would like a traffic study done to investigate the feasibility. In order to have quality development in Cashion, the roadways need to be improved to accommodate pedestrians, bikes, and vehicular traffic. It will be necessary to have appropriate signage to direct travelers, as well as sufficient parking.

Council Member Malone said the roundabout is a nice gesture; however, there are community concerns with traffic flow in the area. She agrees that a traffic study is necessary. She complimented the design concepts for the entry into Old Town. The corner of 111th Avenue would be an ideal location for the splash pad. She questioned if economic development has been pushed for the area of El Mirage and Lower Buckeye. Ms. Novak stated that the sidewalk expansion is being evaluated, particularly regarding challenges obtaining right-of-way.

Ken Chapa, Economic Development Services Director, spoke on economic development within the mentioned areas. In terms of the plan, staff is in the process of identifying all vacant parcels and development opportunities. This includes development of an opportunity brochure that goes over all commercially viable parcels, value propositions, infill incentives, new market tax credits and OTAB.

Council Member Kilgore thanked staff and expressed his appreciation for reaching out to the residents. He stated he enjoyed reading their comments and ideas on what they want to see done. He noted his appreciation for the insight and comments from Council as well. He concurred that the splash pad concept for Cashion is a great idea. He agrees with the comments from Council Member Pineda and Neilson regarding the roundabout. He concurred with Council Member Pineda regarding small business development on Western Avenue, creating a neat development environment. He was in favor for improvements to Las Ligas Park and the wayfinding signs. He noted a common thread among community comments has been an emphasis on art; incorporating this into signage is a great idea. Another common subject of community input is the need for improved street conditions, and he appreciates the City's plans to address this. He

commented on input received from a community member suggesting a Sam Garcia statue, noting it was a good idea and something he would like the staff to explore.

Council Member Conde agrees with the entry concepts for Old Town with the potential addition of lights. OTAB will be a great opportunity for residents in Old Town who are interested in opening their own business. The mercado is a great opportunity for businesses to showcase handcrafts and it would be beneficial to invite high school students to participate in events. The splash pad and parking amenities are a great idea for Cashion. Any area providing splash pads should also provide restrooms and shade. She commented that adding trees would assist with reducing the heat index on sidewalks and other areas. She concurred with Council Member Pineda regarding the lights on Western. She concurs there should be a traffic study for the roundabout and efforts to develop more affordable housing.

Vice Mayor Dennis referenced City-owned property and asked staff to provide an addendum to the document to address highest and best uses of City property as well as any applicable stipulations. She stressed the need to identify locations to accommodate parking in the Old Town area. She concurred with Council comments regarding the need for a traffic study on the roundabout. She would like to see a roundabout in the area of Central and Western. She concurs with the addition of the splash pad and parking in Cashion. In addressing the area on the north side of the railroad tracks, there is the opportunity for development of a park or for business development. Funding is a major question that must be addressed, as much of the proposals are currently unfunded.

Ms. Novak stated staff will return to Council on March 22nd. In the meantime, staff will collect feedback from the Planning Commission and the Neighborhood and Family Services Commission.

3. ADJOURNMENT

There being no further business before the Council, Council Member Kilgore moved to adjourn the Work Session meeting; Council Member Nielson seconded the motion.

Upon vote, the motion was carried unanimously 6 to 0.

Council Member Conde	Aye
Council Member Kilgore	Aye
Council Member Malone	Aye
Council Member Nielson	Aye
Council Member Pineda	Aye
Vice Mayor Dennis	Aye

Meeting adjourned at 7:13 p.m.

A **Regular Meeting** of the City Council of the City of Avondale, Arizona was convened using the Zoom Cloud Meeting platform in open and public session at 7:20 p.m. All participants attended by phone or video.

Vice Mayor Dennis led the Pledge of Allegiance, followed by a moment of silent reflection.

Members Present: Vice Mayor Pat Dennis; Council Members Tina Conde, Bryan Kilgore, Veronica Malone, Curtis Nielson, and Mike Pineda.

Members Absent: Mayor Kenn Weise.

Other Municipal Officials Present: Charles Montoya, City Manager; Gina Montes, Assistant City Manager; Tracy Stevens, Deputy City Manager; Cherlene Penilla, Deputy City Manager; Nicholle Harris, City Attorney; Marcella Carrillo, City Clerk; Cindy Blackmore, Public Works Director; Jessica Blazina, Intergovernmental Affairs Administrator; Ken Chapa, Economic Development Services Director; Lindsey Duncan, Finance and Budget Director; Craig Jennings, Judge; Bryan Hughes, Parks and Recreation Director; Chris Lopez, Neighborhood and Family Services Director; Callie McGraw, Interim Human Resource Director; Kevin Murphy, Development and Engineering Services Director; Dale Nannenga, Police Chief; Abril Ruiz-Ortega, Court Administrator; Jeffrey Scheetz, Chief Information Officer; and Pier Simeri, Marketing and Public Relations Director.

Audience: Five members of the public were present.

1. ROLL CALL AND STATEMENT OF PARTICIPATION BY THE CITY CLERK

2. UNSCHEDULED PUBLIC APPEARANCES

None.

3. SCHEDULED PUBLIC APPEARANCE

a. RECOGNITION OF CITY OF AVONDALE EFFORTS FOR CENSUS 2020

Luis Cardenas Camacho, Partnership Specialist, Denver Region, US Census Bureau recognized the City Council for Avondale's efforts to ensure a complete count for the 2020 Census effort.

Mr. Cardenas Camacho stated that nationally, this has been the most successful census in the last 20 years. The 2020 census had a higher response rate than 2010 at 67 percent and a 99.98 completion rate. The projected self-response rate was 65.6 percent, and this was surpassed. On average, it took nine minutes for people to complete the census. For those who did not respond or self-respond, the remaining 33 percent were completed through door-to-door contact. Because of displacement due to wildfires, hurricanes, and COVID-19, there was an increase in the homeless population. In terms of a regional recap, 313 specialists were hired with 48,000 enumerators. The City of Avondale was

included in the mayoral initiatives, with the secretary of the bureau speaking of Mayor Weise regarding the importance of the census and for adequate enumerators, especially for Cashion. Next steps include validation of data in preparation for signature by the President on December 31st. This will be followed by redistricting counts, available in 2021. Post enumeration surveys will estimate the number of residents missed in the census. End of data collection is scheduled for October 2021. Next steps for 2021 involve household surveys. The data dissemination program is comprised of trained data specialists who assist and train municipalities to utilize census data.

Vice Mayor Dennis thanked Mr. Cardenas Camacho, noting that the census was a huge endeavor, particularly considering the ongoing pandemic. Council expressed appreciation for all the hard work.

4. PRESENTATION ITEMS

a. PROCLAMATION HONORING PAULA LAMB ON THE OCCASION OF HER RETIREMENT

City Council presented a Proclamation honoring Paula Lamb for nineteen and a half years of dedicated service to the City of Avondale.

Craig Jennings, Avondale City Court Judge, shared a few words of appreciation to Ms. Lamb. Abril Ruiz-Ortega, Court Administrator, shared a few words of appreciation to Ms. Lamb. Ms. Lamb shared her appreciation for her time working for the City. Vice Mayor Dennis read the proclamation. Council thanked Ms. Lamb for her dedication and service to the City of Avondale.

5. CONSENT AGENDA

Items on the consent agenda are of a routine nature or have been previously studied by the City Council at a work session. They are intended to be acted upon in one motion. Council members may pull items from consent if they would like them considered separately.

Vice Mayor Dennis asked if any Council Member wished to have an item removed from the Consent Agenda. Having no requests from Council, motion was made by Council Member Malone, seconded by Council Member Nielson, to approve the Consent Agenda.

Upon vote, the motion carried unanimously 6 to 0.

Council Member Conde	Aye
Council Member Kilgore	Aye
Council Member Malone	Aye
Council Member Nielson	Aye
Council Member Pineda	Aye
Vice Mayor Dennis	Aye

a. MINUTES

City Council approved the October 19, 2020, November 2, 2020, and November 16, 2020 City Council Meeting Minutes.

b. APPOINTMENT OF MEMBERS TO THE CITY'S BOARDS, COMMISSIONS AND COMMITTEES

City Council approved the following Council Subcommittee on Boards, Commissions and Committees' recommendations for the appointment of members of the City's boards, commissions and committees.

Capital Improvement Plan Citizens Committee

- *Katherine Hall moved from an Alternate Member to a Regular Member with a 2020 partial term to expire on 12/31/2020, followed by a full term to expire on 12/31/2023 *effective immediately to fill a vacancy*
- *Fabian Prado appointed as a Regular Member with a 2020 partial term to expire on 12/31/2020, followed by a full term to expire on 12/31/2023 *effective immediately to fill a vacancy*

Energy, Environment, And Natural Resources Commission

- *Daniel Schuh reappointed as a Regular Member with a 2021 term to expire on 12/31/2023*
- *Bernadette Barba reappointed as a Regular Member with a 2021 term to expire on 12/31/2023*
- *Thomas Albrigo reappointed as a Regular Member with a 2021 term to expire on 12/31/2023*
- *Kim Avila reappointed as an Alternate Member with a 2021 term to expire on 12/31/2023*
- *Alejandro Arreguin appointed as an Alternate Member with a 2020 partial term to expire on 12/31/2020, followed by a full term to expire on 12/31/2023 *effective immediately to fill a vacancy*

Municipal Art Committee

- *Jan Graham reappointed as a Regular Member with a 2021 term to expire 12/31/2023*
- *Kalila Martine De Aragon appointed as a Regular Member with a 2021 term to expire on 12/31/2023*
- *Shawna Scroggins moved up from an Alternate Member to a Regular Member position with a 2020 partial term to expire on 12/31/2020, followed by a full term to expire on 12/31/2023 *effective immediately to fill the vacancy of Mr. Arreguin*
- *Gurjit Kaur appointed as an Alternate Member with a 2020 partial term to expire on 12/31/2020, followed by a full term to expire on 12/31/2023 *effective immediately to fill the vacancy of Ms. Scroggins*

Neighborhood and Family Services Commission

- *Jerome Brownlee moved up from an Alternate Member to a Regular Member position with a 2021 term to expire on 12/31/2020*
- *Michelle McMullen moved up from an Alternate Member to a Regular Member position with a 2021 partial term to expire on 12/31/2021*
- *Nellie Goetz appointed as Alternate Member #1 with a 2021 partial term to expire on 12/31/2022*
- *Maxine White appointed as Alternate Member #2 with a 2021 term to expire on 12/31/2023*

Planning Commission

- *Christopher Thompson reappointed as a Regular Member with a 2021 term to expire on 12/31/2023*
- *Lisa Osborne reappointed as a Regular Member with a 2021 term to expire on 12/31/2023*
- *Blanca Uvari appointed as an Alternate Member with a 2021 term to expire on 12/31/2023*
- *Alisha Meginnis appointed as a Regular Member with a 2021 term to expire on 12/31/2023*

Parks and Recreation Advisory Board

- *Monique Ayers reappointed as a Regular Member with a 2021 term to expire on 12/31/2023*
- *Marie Arellano as a Regular Member with a 2021 term to expire on 12/31/2023*
- *Lilly Lazo as an Alternate Member with a 2020 partial term to expire on 12/31/2022*
**effective immediately to fill a vacancy*

Board of Adjustment

- *Maxine White appointed as a Regular Member with a 2020 term to expire on 12/31/2023*
- *Nellie Goetz appointed as a Regular Member with a 2020 partial term to expire on 12/31/2022*

Risk Management Trust Fund Board and Worker's Compensation Trust Board

- *Thomas Albrigo reappointed as a Regular Member with a 2021 term to expire on 12/31/2023*
- *Angela Medina reappointed as a Regular Member with a 2021 term to expire on 12/31/2023*

Volunteer Fire Fighter Pension Board

- *Eddie James reappointed as a Regular Member with a 2021 term to expire on 12/31/2023*

c. APPOINTMENT OF CHAIR AND VICE CHAIR TO THE PLANNING COMMISSION AND THE BOARD OF ADJUSTMENT

City Council approved: (a) David Iwanski as Chair and Christopher Thompson as Vice Chair of the Planning Commission; and (b) Carolyn Jones as Chair and Maxine White as Vice Chair of the Board of Adjustment for the calendar year 2021.

d. ONE ARIZONA OPIOID SETTLEMENT MEMORANDUM OF UNDERSTANDING

City Council approved the participation in the One Arizona Opioid Settlement and authorized the City Attorney to execute the Memorandum of Understanding.

e. RE-PLAT OF PALMILLA PHASE II FOR BARCLAY/FRY'S - APPLICATION PL-20-0206

City Council approved a request by Jason Sanks, Sustainability Engineering Group (on behalf of property owner Smith Food and Drug Centers, Inc.) for approval of a Re-Plat of Palmilla Phase II for Barclay/Fry's. The site is located approximately 210 feet south of the southeast corner of McDowell Road and Dysart Road. The proposed Re-Plat splits Lots 2 and 5 of the Palmilla Phase II Plat and creates a separate lot for a proposed drive-through restaurant.

f. AVONDALE CAPITAL MINOR LAND DIVISION – APPLICATION PL-20-0009

City Council approved a request by Avondale Capital, LLC for approval of a Minor Land Division (MLD) to split the property into two (2) lots and dedicate right-of-way and a public utility easement along Eliseo C. Felix Jr. Way. The site is approximately 3.6 acres in size and located east of the north terminus of Eliseo C. Felix Jr. Way, south of Interstate 10.

g. RESOLUTION 1077-1220 – CANVASS OF VOTES FOR THE NOVEMBER 3, 2020 SPECIAL ELECTION

City Council adopted Resolution 1077-1220 canvassing the results of the November 3, 2020 Special Election and authorized the Mayor, City Attorney and City Clerk to execute the necessary documents.

h. RESOLUTION 1080-1220 – INTERGOVERNMENTAL AGREEMENT WITH MARICOPA COUNTY FOR THE INSTALLATION AND MAINTENANCE OF TRAFFIC IMPROVEMENTS AT THE INTERSECTION OF BROADWAY ROAD AND AVONDALE BOULEVARD

City Council adopted Resolution 1080-1220 authorizing an Intergovernmental Agreement (IGA) with Maricopa County for the Installation and Maintenance of Traffic Improvements at the Intersection of Broadway Road and Avondale Boulevard, and authorized the Mayor, or City Manager and City Clerk to execute the necessary documents.

i. ORDINANCE 2044-1220 – DEDICATION OF A PERPETUAL EASEMENT TO THE UNITED STATES OF AMERICA AT VAN BUREN STREET AND 111TH AVENUE

City Council adopted Ordinance 2044-1220 dedicating a Perpetual Easement to the United States of America at Van Buren Street and 111th Avenue and authorized the Mayor or City Attorney, and City Clerk to execute the necessary documents.

6. REGULAR AGENDA

a. VILLAGE AT THE BLVD – DEVELOPMENT PLAN – APPLICATION PL-20-0114

City Council considered a request by Ms. Shelby Duplessis, EMC Management, LLC, for approval of a Development Plan for Village at The BLVD, a proposed 187-unit, single-story Multi-family residential community in The BLVD located on 15.92 net acres at the southwest corner of the alignments of Roosevelt Street and 111th Avenue. The proposed development provides for a density of 11.7 dwelling units per acre.

Ken Galica, Division Lead Planner, provided a brief overview of the subject property details and location. The property was annexed in 2009 and is located within The BLVD residential district of the City. The property was rezoned from Commerce Park (CP) to The BLVD Zoning District in March of 2020. The parcels to the east, north and west sides are undeveloped properties with the Waterford Square Neighborhood to the south. Zoning for surrounding areas was reviewed.

The development will have gated access with primary access from Roosevelt Street with secondary access from 111th Avenue. Building types were reviewed, which include two-bedrooms, three-bedrooms, and duplexes. This is the first Avondale development that includes single-family rental units with an outward focus. A total of 347 parking spaces are provided, which includes 64 garage spaces and 187 covered parking spaces. The total parking spaces exceeds the City's minimum requirement. Roosevelt Street within The BLVD is designed with an additional five-foot width to accommodate on street parallel parking. The project provides 8.5 acres of open space with 2.5 acres of usable space, meeting the requirements of The BLVD.

The primary amenity area is a centralized 1.2-acre amenity zone to include a climate-controlled clubhouse, fitness center, resort style pool, gaming area, covered grilling area, seated fire pit area, yoga lawn, a shaded hammock seating area, and a dog park. A planned trail corridor runs along the south boundary. There is 40 feet of right-of-way that has been dedicated by the developer of Waterford Square in the area which will be used, in addition to 30 feet of the subject property, for a pedestrian-only trail amenity. This will feature a 10-foot wide paved trail that the developer will be responsible for construction and maintenance. Within the 30-foot portion, the developer will provide seating nodes, landscaping and lighting. The path will connect 111th Avenue west to the Park Avenue sidewalk.

The development includes high quality, diverse, and contemporary styled architecture that furthers the goals of The BLVD specific plan. Each building type is provided in three elevations. Detailing and elevations were reviewed.

The proposal conforms with the residential district within The BLVD in the General Plan designation, zoning, and specific plan. The density is slightly below the required minimum; however, The BLVD plan is very clear that lower densities are permissible within the residential district as long as the remainder of undeveloped property develops at a sufficient density such that the overall development of the property meets the minimum. This means that the remaining 9.5 acres will need to develop with a density of approximately 299 units. The product is a good use for the site because it provides a nice

transition to the existing single family residential in Waterford Square. The plan is outwardly focused with excellent pedestrian connectivity. Functional access and onsite circulation are provided for both residential and emergency vehicles. Open space and amenities exceed minimum requirements. The architecture provides 27 different combinations of buildings. The Planning Commission recommended approval in October, subject to the ten recommended conditions.

Council Member Nielson referenced the north entrance as it applies to schoolchildren, expressing the importance of looking at school bus access into the community. He asked about whether the intersection at Van Buren and 111th will be improved. Mr. Galica confirmed as part of Roosevelt Park Phase II, the developer will widen 111th Avenue and make other improvements to the intersection. In response to a question from Council Member Nielson, Mr. Galica confirmed that the trail will be completed by the developer on the property adjacent to the property all the way out to Park Avenue. The land near Roosevelt Street and 111th Avenue will only be improved by the developer adjacent to the project.

Council Member Malone stated that the project references public schools but does not verify adequate capacity. Mr. Galica stated that Council is provided with the certificates of adequate school facilities for any request where a developer wants to provide density beyond what districts have already expected. In a case where a property is already zoned for multifamily, districts are fully aware and have modeled enrollment based upon existing densities.

Vice Mayor Dennis asked if the density changed when the area was rezoned to The BLVD. Mr. Galica stated the Civic Center Plan also allowed for quite high residential density to which school districts were involved with. The current density within the BLVD Specific Area Plan is not higher than what it was within the previous plan so the estimated enrollment should not have changed.

Vice Mayor Dennis asked whether the school capacity agreements were documented in the past. She expressed some concerns and asked if a stipulation to request a letter from the schools would be appropriate. Ms. Montes stated that staff have addressed this concern and although a stipulation is not needed, Council may direct staff not to proceed until they confirm with the school district that they have adequate capacity.

Council Member Malone suggested going back to the original plans for the City Center to show that there was a sign-off at that time. Ms. Montes affirmed that staff can check those records. Vice Mayor Dennis directed staff to research the concern and review past records.

In response to a question from Council Member Malone, Mr. Galica confirmed that 111th Avenue will connect to Roosevelt with the west half completed by the developer but not be completely finished. The east half will not have curb, gutter, sidewalk, and streetlights initially but will be a half-street to accommodate two-way traffic. In response to a question from Council Member Malone, Mr. Galica stated that he would have to check whether a

traffic signal in the area of Van Buren and 111th was warranted. Council Member Malone requested staff follow up on whether a traffic signal will be installed in the high traffic area.

Vice Mayor Dennis asked whether a traffic study was conducted. Mr. Galica confirmed that there is a traffic study provided with the application, which recommended standard improvements adjacent to the property. No new signals were triggered by this proposed development but that is not to say that there is no future signal planned at 111th Avenue and Van Buren. He explained the 187 units in the complex would not be enough to warrant the additional traffic signal. Ms. Montes added that other signals in the CIP currently take priority over this intersection. This particular development would not be responsible for that construction. Staff can look at the CIP and what the priorities are to provide more information on the anticipated schedule. Mr. Galica clarified that the east half of the street will be constructed when the Avondale Gateway Center is developed.

Council Member Kilgore thanked staff for the presentation and expressed his appreciation for all the hard work done on the project.

Council Member Conde concurred with Council Member Malone and Vice Mayor Dennis in regard to the traffic light at Van Buren and 111th Avenue. Overall, the development is much needed in the area in terms of foot traffic and connectivity and it appears to be a high-quality rental community.

Council Member Pineda said he empathizes with residents in Waterford Square, who feel problems are being compounded with more development; however, providing a way for them to go north will offset some of their stress. The development itself is a nice way to increase the footprint and hopefully spur economic development growth in The BLVD.

In response to a question from Vice Mayor Dennis, Mr. Galica confirmed that the remainder of the 10 acres of The BLVD property will require 299 units. Vice Mayor Dennis asked about the types of development that could accommodate that number of units. Mr. Galica said it would need to be a minimum of three stories. Vice Mayor Dennis expressed concern regarding a building of that height in the City. Mr. Galica said there has been initial interest in developing other properties in the City with elevator-served four-story buildings. It appears that the market may be getting ready to accommodate this. Otherwise, the project can get close to the required density with a three-story project. Ms. Montes added that they are looking at the possibility of a parking garage in the future to address the parking issue. She noted staff will work closely with developers and noted variances are always a possibility.

Vice Mayor Dennis commented that her concerns remain and surmised that there will likely be a variance. In terms of the project itself, she likes the selection of materials and elevations. She asked about lighting components for the trail system. Mr. Galica confirmed that the developer will be providing bollard lighting along the trail in repeating increments.

Vice Mayor Dennis inquired about the absence of play equipment in the open areas. Mr. Galica deferred to the applicant. Sherri Koshiol, Empire Group, stated that the project

will be the company's fourth project. She stated that residents have been impressed with the recreational amenities provided in its projects. Ms. Koshiol stated the market for the target resident has not indicated a desire for a playground amenity. Vice Mayor Dennis referred to the aluminum shade structure and requested that it be improved. Ms. Koshiol stated that the developer can work with City staff on options but noted they typically use ramada-type shade structures.

Council Member Malone moved to approve Application PL-20-0114 Village at The BLVD Development Plan subject to ten (10) recommended conditions as listed in the staff report; Council Member Conde seconded the motion.

Upon vote, the motion was carried unanimously 6 to 0.

Council Member Conde	Aye
Council Member Kilgore	Aye
Council Member Malone	Aye
Council Member Nielson	Aye
Council Member Pineda	Aye
Vice Mayor Dennis	Aye

b. PUBLIC HEARING – ZONING ORDINANCE TEXT AMENDMENT – SECTION 1303.B MEDICAL MARIJUANA DISPENSARY HOURS OF OPERATION - APPLICATION PL-20-0167

A request by Ms. Lauren Niehaus, Harvest Health & Recreation, Inc., a text amendment to the Zoning Ordinance, Section 1303.B (Medical Marijuana Uses/Requirements), extending the ending hours of operation of medical marijuana dispensaries from 8:00 P.M. to 10:00 P.M.

Ms. Montes stated that staff is recommending a continuation of this item until the January 19, 2021 City Council meeting agenda.

Council Member Nielson moved to continue this agenda item to January 19, 2021; Council Member Malone seconded the motion.

Upon vote, the motion was carried unanimously 6 to 0.

Council Member Conde	Aye
Council Member Kilgore	Aye
Council Member Malone	Aye
Council Member Nielson	Aye
Council Member Pineda	Aye
Vice Mayor Dennis	Aye

c. PUBLIC HEARING AND ORDINANCE 2045-1220 – ZONING ORDINANCE TEXT AMENDMENTS SECTION 1 (ADMINISTRATION AND PROCEDURES) ; SECTION 2 (RESIDENTIAL DISTRICTS) ; SECTION 5 (SPECIAL DISTRICTS; OVERLAYS); SECTION 8 (PARKING); SECTION 9 (SIGNS); AND SECTION 12 (LANDSCAPE, WALLS, AND FENCES) – APPLICATION PL-20-0248

City Council held a public hearing and consider a staff-initiated request to adopt Ordinance 2045-1220 approving text amendments to the Zoning Ordinance. The amendments to Avondale Zoning Ordinance Section 1 (Administration and Procedures), Section 2 (Residential Districts), Section 5 (Special Districts; Overlays), Section 8 (Parking), Section 9 (Signs), and Section 12 (Landscape, Walls and Fences), will allow for continued refinement of the Zoning Ordinance to reflect changes in policies and procedures, allow for clerical corrections, and address the overall accuracy and usability of the Zoning Ordinance

Brian Craig, Planning Manager, noted that the City is the applicant on this item. The last time the zoning ordinance text amendments were brought to City Council was in the fall of 2019. Some items were continued for discussion into this year. The final amendment regarding expiration for PADs was adopted in 2020. Staff endeavors to bring refined codes to Council once a year to ensure they are keeping up with policies and procedures, changes in trends in the development community and addressing the overall accuracy of the zoning ordinance. Mr. Craig briefly reviewed the proposed amendments.

Vice Mayor Dennis opened the public hearing and did not receive any requests to speak. Vice Mayor Dennis closed the public hearing and opened the floor to comments from Council, no comments were received.

Council Member Nielson moved to adopt Ordinance 2045-1220 – approval of Application PL-20-0248 Zoning Ordinance Text Amendments; Council Member Pineda seconded the motion.

Upon vote, the motion was carried unanimously 6 to 0.

Council Member Conde	Aye
Council Member Kilgore	Aye
Council Member Malone	Aye
Council Member Nielson	Aye
Council Member Pineda	Aye
Vice Mayor Dennis	Aye

d. PUBLIC HEARING AND ORDINANCE 2046-1220 – PALM LANE RIGHT-OF-WAY ANNEXATION - APPLICATION PL-20-0204

City Council held a public hearing and considered a City-initiated request to adopt Ordinance 2046-1220 annexing approximately 0.19 acres of right-of-way along a section of Palm Lane approximately 40 feet west of Avondale Boulevard and authorize the Mayor and City Clerk to execute the necessary documents.

Brian Craig, Planning Manager, identified the location of the subject property. The application will assist with future road improvement projects in the area. Once approved by Council, staff will work with partners at the County to conduct a similar action. Palm Lane extending to 116th Lane is within the City limits except for this small parcel and the application would clear up this issue.

Vice Mayor Dennis opened the public hearing and did not receive any requests to speak. Vice Mayor Dennis closed the public hearing and opened the floor to comments from Council, no comments were received.

Council Member Malone moved to adopt Ordinance 2046-1220 – approval of Application PL-20-0204 Palm Lane Right-of-Way Annexation; Council Member Conde seconded the motion.

Upon vote, the motion was carried unanimously 6 to 0.

Council Member Conde	Aye
Council Member Kilgore	Aye
Council Member Malone	Aye
Council Member Nielson	Aye
Council Member Pineda	Aye
Vice Mayor Dennis	Aye

7. ADJOURNMENT

There being no further business before the Council, Council Member Pineda moved to adjourn the Regular Meeting; Council Member Malone seconded the motion.

Upon vote, the motion was carried unanimously 6 to 0.

Council Member Conde	Aye
Council Member Kilgore	Aye
Council Member Malone	Aye
Council Member Nielson	Aye
Council Member Pineda	Aye
Vice Mayor Dennis	Aye

Meeting adjourned at 8:50 p.m.

Kenn Weise, Mayor

CERTIFICATION AND ATTESTATION

I hereby certify that the foregoing minutes are a true and correct copy of the minutes of the Work Session and Regular Meeting of the Council of the City of Avondale held on the 7th day of December 2020. I further certify that the meeting was duly called and held, and that a quorum was present.

Marcella Carrillo, City Clerk

Date Approved by City Council

CITY COUNCIL REPORT

SUBJECT: Resolution 1006-0121 - Council Code of Conduct

MEETING DATE: 1/19/2021

TO: Mayor and Council

FROM: Marshall Pimentel, Management Analyst, (623) 333-1027

THROUGH: Gina Montes, Assistant City Manager, (623) 333-1012

REVIEWED: Charles A. Montoya, City Manager, (623) 333-1016

PURPOSE:

City Council will consider a request to adopt Resolution 1006-0121, approving a Code of Conduct outlining the standards of conduct for councilmembers when representing the City of Avondale. The Council will take the appropriate action

BACKGROUND:

Although the City of Avondale has an Ethics Handbook for employees, the City does not currently have a Code of Conduct for the Mayor and Council. The City Council Rules of Procedure, last updated in 2019, deal primarily with parliamentary procedure, and the City Council Handbook, adopted in 2016, serves to orient elected officials to their roles and outline the City's practices in accomplishing its goals.

A Code of Conduct typically outlines norms, rules and responsibilities to guide behavior. It commonly includes a set of ethical principles, accountability procedures, and standards of conduct such as respect for others and compliance with other policies and procedures. The cities of Tempe and Tolleson have adopted Codes of Conduct for their elected officials, and the City of Phoenix maintains a similar document entitled the Elected Officials Ethics Handbook.

DISCUSSION:

Staff has drafted the attached Code of Conduct for the Council's review. In summary, the Code of Conduct is meant to affirm the desire of the community to have, and the Council's intent to provide, a fair, ethical, and accountable governing body.

BUDGET IMPACT:

This item does not contain a budgetary impact.

RECOMMENDATION:

Staff recommends the adoption of the Council Code of Conduct.

RESOLUTION NO. 1006-0121

A RESOLUTION OF THE COUNCIL OF THE CITY OF AVONDALE,
ARIZONA, ADOPTING A CITY COUNCIL CODE OF CONDUCT.

BE IT RESOLVED BY THE COUNCIL OF THE CITY OF AVONDALE as follows:

SECTION 1. The “City Council Code of Conduct” is hereby adopted in substantially the form and substance attached hereto as Exhibit A and incorporated herein by reference.

SECTION 2. If any section, subsection, sentence, clause, phrase or portion of this Resolution or any part of the “City Council Code of Conduct” adopted herein is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions thereof.

SECTION 3. The Mayor, the City Manager, the City Clerk and the City Attorney are hereby authorized and directed to take all steps and to execute all documents necessary to carry out the purpose and intent of this Resolution.

PASSED AND ADOPTED by the Council of the City of Avondale, Arizona,
January 19, 2021.

Kenneth N. Weise, Mayor

ATTEST:

Marcella Carrillo, City Clerk

APPROVED AS TO FORM:

Nicholle Harris, City Attorney

EXHIBIT A
TO
RESOLUTION NO. 1006-0121

(City Council Code of Conduct)

See following pages.

City of Avondale City Council Code of Conduct

Statement of Purpose

The citizens and businesses of Avondale are entitled to have fair, ethical and accountable local government that has earned the public's full confidence and trust in the ability of their elected officials to always act with honor.

The City of Avondale's strong desire to fulfill this commitment therefore requires that members of the Council:

- Comply with both the letter and spirit of the laws and policies affecting the operations of government;
- Remain independent, impartial and fair in their judgment and actions;
- Use their office for the public good, not for personal gain; and
- Conduct public deliberations and processes openly, unless legally confidential, and in an atmosphere of respect and civility.

This Code of Conduct is designed to describe the manner in which Council Members ought to treat one another, City staff, constituents, and others they interact with while representing the City of Avondale to assure public confidence in the integrity of local government and its effective and fair operation.

- 1. Act in the Public Interest.** Recognizing that stewardship of the public interest must be their primary concern, members will work for the common good of the people of Avondale and not for any private or personal interest, and they will assure fair and equitable treatment of all persons, claims and transactions coming before the Avondale City Council.
- 2. Comply with the Law.** Members shall comply with the laws of the nation, the State of Arizona, and the City of Avondale in the performance of their public duties. These laws include but are not limited to the United States and Arizona constitutions; laws pertaining to ethics, conflicts of interest, election campaigns, financial disclosures, employer responsibilities, and open processes of government; and City ordinances and policies. Members, if they have questions, are encouraged to seek advice from the City Manager and/or City Attorney regarding the interpretation and application of these laws.

3. **Conduct of Members.** The professional and personal conduct of members must be above reproach and avoid even the appearance of impropriety. Members shall refrain from abusive conduct, harassment, personal charges or verbal attacks upon the character or motives of other members of Council, boards, commissions, the staff or public. Members shall demonstrate civility and respect at all times. This remains true in both public and private encounters as members should be aware that the public nature of the office they hold means they are always on display.
4. **Respect for Process.** Members shall perform their duties in accordance with the City Council Rules of Procedure which is based on Arizona Open Meeting Law, City Charter, City Code, and Roberts Rules of Order. They shall respect the meaningful involvement of the public and implementation of policy decisions of the City Council by City staff.
5. **Conduct of Public Meetings.** Members shall prepare themselves for public issues; listen courteously and attentively to all public discussions before the body; and focus on the business at hand. They shall refrain from interrupting other speakers, making personal comments not germane to the business of the body, or otherwise interfering with the orderly conduct of meetings. They shall demonstrate effective problem-solving approaches to find common ground and seek compromise when disparate points of view are expressed.
6. **Decisions Based on Merit.** Members shall base their decisions on the merits and substance of the matter at hand.
7. **Communication.** Members shall publicly share substantive information that is relevant to a matter under consideration by the Council which they may have received from sources outside the public decision-making process. However, any confidential or privileged information shall be maintained as such.
8. **Advocacy.** Members shall represent the official policies or positions of the City Council to the best of their ability when designated as delegates for this purpose. When presenting their individual opinions and positions to external stakeholders, the public, and the media, members shall explicitly state they do not represent the Council or the City of Avondale, nor will they allow the inference that they do. Moreover, members shall not make political statements of support or endorsements in public forums.
9. **Policy Role of Members.** Members shall respect and adhere to the council-manager structure of Avondale city government and follow the City Charter with respect to the City Manager's relationship with the City Council. In this structure, the City Council determines the policies of the City with the advice, information and analysis provided by the public, boards, commissions, and City staff. Members therefore shall not interfere with the administrative functions of the City or the professional duties of City staff; nor shall they impair the ability of staff to implement Council policy decisions.

Members shall adhere to [Avondale City Charter, Article II, Section 17](#) governing interference in administrative functions.

- 10. Positive Work Place Environment.** Members shall support the maintenance of a positive and constructive work place environment for City employees and for citizens and businesses dealing with the City. Members shall recognize their special role in dealings with City employees and refrain from creating the perception of inappropriate direction to staff, including the solicitation of their political support. Members shall treat staff as professionals and refrain from publicly criticizing individual employees, including Council-appointed officers.

Members shall adhere to Section 10 of the City Council Handbook regarding interactions with city staff.

- 11. Compliance and Enforcement.** The Avondale Council Code of Conduct expresses standards of conduct expected for members of the City Council. It is intended to be self-enforcing and members themselves have the primary responsibility to assure that standards are understood and met, and that the public can continue to have full confidence in the integrity of government. After initial adoption, each newly elected member of council shall sign a statement affirming that they have read and understand the Avondale Council Code of Conduct.

The following compliance and enforcement courses of action are also available to the Mayor and Council:

- a. Each member of Council has the responsibility to intervene when other members' actions appear to be in violation of the Code of Conduct. This can take the form of an informal, verbal conversation. These instances shall be documented in a memo to be maintained by the Office of the City Manager and/or City Attorney with the Mayor copied.
- b. The City Council, by a vote of a majority of its members, may impose sanctions on members whose conduct does not comply with the City's standards, such as a formal reprimand or removal from any position or assignment to which the member has been appointed by City Council.
- c. The City Council, by a supermajority vote of its members, may further formally censure a member who has repeatedly failed to uphold the standards outlined herein.

12. Definitions:

- a. Reprimand – an official rebuke of a member’s behavior or actions taken that violate the Council Code of Conduct
- b. Censure – a strong statement of disapproval for a member’s behavior or actions that repeatedly undermine the scope of the Council Code of Conduct
- c. Supermajority – a minimum of five votes (out of seven) as opposed to a simple majority which requires just four votes



CITY COUNCIL REPORT

SUBJECT: Presentation of the Audit Report

MEETING DATE: 1/19/2021

TO: Mayor and Council

FROM: Lindsey Duncan, Finance and Budget Director, (623) 333-2011

THROUGH: Gina Montes, Assistant City Manager, (623) 333-1012

REVIEWED: Charles A. Montoya, City Manager, (623) 333-1016

PURPOSE:

City Council will consider a request to accept the City's Comprehensive Annual Financial Report and the results of the annual audit for the fiscal year ended June 30, 2020. The Council will take appropriate action.

BACKGROUND:

The City Charter requires an independent certified public accountant to perform an annual audit of the City's financial statements and supporting accounts and fiscal transactions; and render an opinion on the financial statements together with a report, including recommendations concerning policy and fiscal procedures, to the City Council and City Manager.

DISCUSSION:

CliftonLarsonAllen LLP, the City's auditors, recently completed the following annual audits of the City for the year ended June 30, 2020.

- Audit of the Comprehensive Annual Financial Report (CAFR)
- Examination of the City's compliance as to whether the City used highway user revenue fund monies for authorized transportation purposes (HURF Compliance)

CAFR

The auditors rendered an unmodified opinion ("clean opinion") on the financial statements and accompanying notes to the financial statements. The Independent Auditors' Report is presented on pages 9 -11 of the CAFR.

Auditor Letter with Findings

The results of the audit are communicated in a letter to the Mayor, City Council and Management. The letter provides a high level overview of the audit's purpose and result. A few highlights from the letter are:

- The financial statement disclosures are neutral, consistent, and clear.
- Auditors encountered no significant difficulties in dealing with management in performing the audit.

- Two immaterial misstatements were not corrected.
- Two material misstatements were corrected.
- There were no disagreements between management and auditors

Management Letter

Deficiencies identified which the auditors did not consider either material or significant were reported in the Management Letter. The auditors recommended the City improve our policies and procedures regarding the accounting of inventory. Management agrees and will implement the recommendation for the current fiscal year.

HURF Compliance

The auditors performed examination procedures to determine whether expenditures from HURF monies and any other dedicated state transportation revenues were spent pursuant to Arizona Revised Statutes Title 28, Chapter 18, Article 2. The auditors rendered a clean opinion on compliance with the requirements.

BUDGET IMPACT:

There is no budgetary impact.

RECOMMENDATION:

Staff recommends City Council approve the City's Comprehensive Annual Financial Report and the results of the annual audit for the fiscal year ended June 30, 2020.



CliftonLarsonAllen LLP
CLAconnect.com

Honorable Mayor, City Council and Management
City of Avondale, Arizona
Avondale, Arizona

We have audited the financial statements of the governmental activities, the business-type activities, each major fund, and the aggregate remaining fund information of the City of Avondale, Arizona (City) as of and for the year ended June 30, 2020, and have issued our report thereon dated December 22, 2020. We have previously communicated to you information about our responsibilities under auditing standards generally accepted in the United States of America, *Government Auditing Standards* as well as certain information related to the planned scope and timing of our audit. Professional standards also require that we communicate to you the following information related to our audit.

Significant audit findings

Qualitative aspects of accounting practices

Accounting policies

Management is responsible for the selection and use of appropriate accounting policies. The significant accounting policies used by the City are described in Note 1 to the financial statements.

No new accounting policies were adopted and the application of existing policies was not changed during 2020.

The City reported pension and Other Postemployment Benefits (OPEB) liability, deferred inflows, outflows, and expense in the financial statements for plans that were not material to the City (Corrections Officers Retirement Plan, the Elected Officials Retirement Plan and the Public Safety Other Postemployment Benefits); however, all disclosures required by GASB Statements No. 68 and 75 were excluded due to the disclosures being immaterial to the City's financial statements.

We noted no transactions entered into by the City during the year for which there is a lack of authoritative guidance or consensus. All significant transactions have been recognized in the financial statements in the proper period.

Accounting estimates

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected. The most sensitive estimates affecting the financial statements were:

- Management's estimate of the fair value of investments is based on quoted market prices of similar or same investments. We evaluated the key factors and assumptions used to develop the fair value of investments in determining that it is reasonable in relation to the financial statements taken as a whole.
- Management's estimate of the allowance for doubtful accounts is based on historical water and sewer revenues, historical loss levels, and an analysis of the collectability of individual accounts. We evaluated the key factors and assumptions used to develop the allowance in determining that it is reasonable in relation to the financial statements taken as a whole.
- Management's estimate of the value of the long-term storage credits reported as long-term inventory is based on estimated direct costs of generating the long-term storage credits, as well as formulas to estimate the percent of water credited to the City. We reviewed the key factors and assumptions used to develop the value of the long-term storage credits in determining that it is reasonable in relation to the financial statements taken as a whole.
- Management's estimate of the useful lives and remaining useful lives of capital assets is based on the City's previous experience with similar assets and current condition of the asset. We evaluated the key factors and assumptions used to develop the useful lives and remaining useful lives of capital assets in determining that they are reasonable in relation to the financial statements taken as a whole.
- Management's estimate of the current and long-term portion of compensated absences is based on employees that are currently eligible to receive or are expected to receive vacation and sick leave benefits upon retirement. We reviewed key assumptions used to estimate the liability in determining that it is reasonable in relation to the financial statements taken as a whole.
- Management's estimate of the risk management claims incurred, but not reported is based on the report of a third-party actuary and an analysis of claims paid subsequent to year-end. We evaluated the key assumptions used to estimate the claims liability in determining that it is reasonable in relation to the financial statements taken as a whole.
- Management's estimate of the unfunded pension and OPEB liability related to the Arizona State Retirement System, Public Safety Personnel Retirement System Plan, Corrections Officers Retirement Plan, and the Elected Officials Retirement Plan benefits are based on actuarial reports prepared by other professionals. We reviewed the key assumptions used to estimate the liability in determining that they are reasonable in relation to the financial statements taken as a whole.

Financial statement disclosures

Certain financial statement disclosures are particularly sensitive because of their significance to financial statement users. There were no particularly sensitive financial statement disclosures.

The financial statement disclosures are neutral, consistent, and clear.

Difficulties encountered in performing the audit

We encountered no significant difficulties in dealing with management in performing our audit.

Uncorrected misstatements

Professional standards require us to accumulate all misstatements identified during the audit, other than those that are clearly trivial, and communicate them to the appropriate level of management. Management has determined that the effects of uncorrected misstatements are immaterial, both individually and in the aggregate, to the financial statements taken as a whole. The following summarizes uncorrected misstatements of the financial statements:

- Expenditure incurred in the Development Fees Fund prior to June 30, 2020, but paid and expensed in fiscal year 2021 in the amount of \$46,877 were not accrued at year end.
- Inventory in the Highway User Revenue Nonmajor Governmental Fund in the amount of \$266,000 was not recorded as a prepaid in the prior year and was recorded in current year, understating beginning fund balance and expenditures in the current year.

Corrected misstatements

The following material and immaterial misstatements detected as a result of audit procedures were corrected by management:

- Capital related expenses in the amount of \$584,231 in the Other Capital Projects Fund and \$718,535 in the Wastewater Fund incurred prior to June 30, 2020 were paid and capitalized in fiscal 2021. We proposed, and subsequently recorded an adjustment to accrue the capital expenses.

Disagreements with management

For purposes of this letter, a disagreement with management is a financial accounting, reporting, or auditing matter, whether or not resolved to our satisfaction, that could be significant to the financial statements or the auditors' report. No such disagreements arose during our audit.

Management representations

We have requested certain representations from management that are included in the management representation letter dated December 22, 2020.

Management consultations with other independent accountants

In some cases, management may decide to consult with other accountants about auditing and accounting matters, similar to obtaining a "second opinion" on certain situations. If a consultation involves application of an accounting principle to the City's financial statements or a determination of the type of auditors' opinion that may be expressed on those statements, our professional standards require the consulting accountant to check with us to determine that the consultant has all the relevant facts. To our knowledge, there were no such consultations with other accountants.

Significant issues discussed with management prior to engagement

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, with management each year prior to engagement as the City's auditors. However, these discussions occurred in the normal course of our professional relationship and our responses were not a condition to our engagement.

Other information in documents containing audited financial statements

With respect to the required supplementary information (RSI) accompanying the financial statements, we made certain inquiries of management about the methods of preparing the RSI, including whether the RSI has been measured and presented in accordance with prescribed guidelines, whether the methods of measurement and preparation have been changed from the prior period and the reasons for any such changes, and whether there were any significant assumptions or interpretations underlying the measurement or presentation of the RSI. We compared the RSI for consistency with management's responses to the foregoing inquiries, the basic financial statements, and other knowledge obtained during the audit of the basic financial statements. Because these limited procedures do not provide sufficient evidence, we did not express an opinion or provide any assurance on the RSI.

With respect to the combining fund financial statements and budgetary comparison schedules and other supplementary information (collectively, the supplementary information) accompanying the financial statements, on which we were engaged to report in relation to the financial statements as a whole, we made certain inquiries of management and evaluated the form, content, and methods of preparing the information to determine that the information complies with accounting principles generally accepted in the United States of America, the method of preparing it has not changed from the prior period or the reasons for such changes, and the information is appropriate and complete in relation to our audit of the financial statements. We compared and reconciled the supplementary information to the underlying accounting records used to prepare the financial statements or to the financial statements themselves. We have issued our report thereon dated December 22, 2020.

The introductory and statistical sections accompanying the financial statements, which is the responsibility of management, was prepared for purposes of additional analysis and is not a required part of the financial statements. Such information was not subjected to the auditing procedures applied in the audit of the financial statements, and, accordingly, we did not express an opinion or provide any assurance on it.

Our auditors' opinion, the audited financial statements, and the notes to financial statements should only be used in their entirety. Inclusion of the audited financial statements in a document you prepare, such as an annual report, should be done only with our prior approval and review of the document.

* * *

This communication is intended solely for the information and use of the Mayor, City Council and management of the City of Avondale, Arizona and is not intended to be, and should not be, used by anyone other than these specified parties.



CliftonLarsonAllen LLP

Phoenix, Arizona
December 22, 2020



CliftonLarsonAllen LLP
CLAconnect.com

Senior Management
City of Avondale, Arizona
Avondale, Arizona

In planning and performing our audit of the financial statements of the City of Avondale, Arizona (City) as of and for the year ended June 30, 2020, in accordance with auditing standards generally accepted in the United States of America, we considered the City's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the City's internal control. Accordingly, we do not express an opinion on the effectiveness of the City's internal control.

However, during our audit we became aware of deficiencies in internal control other than significant deficiencies and material weaknesses and other matters that are opportunities to strengthen your internal controls and improve the efficiency of your operations. Our comments and suggestions regarding those matters are summarized below. A separate communication dated December 22, 2020, contains our written communication of material weaknesses in the City's internal control. This letter does not affect our communication dated December 22, 2020.

Inventory

The City performs an inventory annually at the end of the fiscal year and for the current fiscal year, management provided inventory guidelines and training to each department conducting an inventory. However, during our inquiries and observations, we noted that not all departments accounted for all inventory that may be on-hand. Certain inventories on-hand may be obsolete or the tracking of certain inventory items may not be cost beneficial. Additionally, we noted a supplies inventory in a nonmajor governmental fund that was not recorded in the previous year due to the lack of proper controls that were recorded in the current fiscal year.

We recommend the City develop strict policies and procedures for the accounting of inventory, including clear guidelines on the reporting of obsolete or damaged inventory, items that are not required to be inventoried and other applicable policies and procedures to safeguard assets. Based on the magnitude of the inventory, we recommend the City consider utilizing a perpetual inventory system that is reconciled to an annual count. In addition, all inventory should be reported and obsolete or damaged inventory should be identified and reported.

* * *

This communication is intended solely for the information and use of management, governance, and others within the City, and is not intended to be, and should not be, used by anyone other than these specified parties.



CliftonLarsonAllen LLP

Phoenix, Arizona
December 22, 2020

Avondale, Arizona

COMPREHENSIVE ANNUAL FINANCIAL REPORT

ARTIST'S RENDERING OF THE CARE1ST AVONDALE RESOURCE CENTER



ARTIST'S
RENDERING OF
THE POLICE
DEPARTMENT'S
HEADQUARTERS
EXPANSION

FISCAL YEAR ENDED

June 30, 2020

Avondale
Arizona



COMPREHENSIVE ANNUAL FINANCIAL REPORT

FISCAL YEAR ENDED JUNE 30, 2020
CITY OF AVONDALE, ARIZONA



MAYOR AND COUNCIL

Kenneth Weise, Mayor
Pat Dennis, Vice Mayor
Bryan Kilgore, Council Member
Tina Conde, Council Member
Veronica Malone, Council Member
Mike Pineda, Council Member
Curtis Nielson, Council Member

MANAGEMENT STAFF

Charles A. Montoya, City Manager
Gina Montes, Assistant City Manager
Tracy Stevens, Deputy City Manager

Prepared by: Finance and Budget Department

Lindsey Duncan, Finance and Budget Director



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INTRODUCTORY SECTION



December 22, 2020

Honorable Mayor and City Council, and Residents, Visitors, and Businesses of the City of Avondale, Arizona:

In accordance with the requirements of the City of Avondale's (the City) Charter, and on behalf of City Management, I am pleased to submit the City's Comprehensive Annual Financial Report for the fiscal year ended June 30, 2020. This report has been prepared in conformity with U.S. generally accepted accounting principles (GAAP) for local governments as prescribed in pronouncements of the Governmental Accounting Standards Board (GASB), and audited in accordance with generally accepted auditing standards (GAAS) by a firm of licensed certified public accountants.

The report consists of management's representations concerning the City's finances. Consequently, management assumes full responsibility for the completeness and reliability of all information presented in this report. To provide a reasonable basis for making these representations, city management has established an internal control framework that is designed both to protect the City's assets from loss, theft, and misuse, and to compile sufficient reliable information for the preparation of the City's financial statements in conformity with GAAP. Because the cost of internal controls should not outweigh their benefits, the City's internal controls have been designed to provide reasonable, rather than absolute, assurance that the financial statements will be free from material misstatement. As management, we assert that, to the best of our knowledge and belief, this financial report is complete and reliable in all material respects.

The City's financial statements have been audited by CliftonLarsonAllen LLP, a firm of licensed certified public accountants. The goal of the independent audit was to provide reasonable assurance that the financial statements of the City as of and for the fiscal year ended June 30, 2020, are free of material misstatement. The independent audit involved examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements; assessing the accounting principles used, and significant estimates made by management; and evaluating the overall financial statement presentation. The independent auditors concluded, based upon the audit, that there was a reasonable basis for rendering an unmodified opinion that the City's financial statements as of and for the fiscal year ended June 30, 2020, are fairly presented in conformity with GAAP. The Independent Auditors' Report is presented as the first component of the financial section of this report.

The independent audit of the financial statements of the City was part of a broader, federally- mandated "Single Audit" designed to meet the special needs of federal grantor agencies. The standards governing single audit engagements require the independent auditors to report on the fair presentation of the financial statements; and also on the audited government's internal controls and compliance with legal requirements, with special emphasis on internal controls and legal requirements involving the administration of federal awards. The Single Audit Report is published as a separate document.

As a recipient of federal, state, and county financial assistance, the City is responsible for ensuring that adequate internal controls are in place to ensure compliance with applicable laws, regulations, contracts, and grants related to those programs. Internal controls are subject to periodic evaluation by management.

GAAP requires that management provide narrative introduction, overview, and analysis to accompany the basic financial statements in the form of Management's Discussion and Analysis (MD&A). This letter of transmittal is designed to compliment the MD&A and should be read in conjunction with it. The City's MD&A can be found immediately following the Independent Auditors' Report.

City of Avondale Profile

The City of Avondale, incorporated in 1946, is located on the southwestern side of the Phoenix metropolitan area. The City's planning area currently occupies 94 square miles and serves a population of approximately 88,000. Unique to Avondale are the three rivers which traverse the City; the Gila, Salt, and Agua Fria Rivers. The convergence of these rivers within Avondale presents an attractive vista offering natural recreation opportunities. Avondale is home to Phoenix Raceway, home of the 2020 NASCAR Cup Series Championship. The venue is a world-class motor sports park nestled in the foothills of the Estrella Mountains. Each year, racing enthusiasts and race teams converge in Avondale, spending millions of dollars.

Avondale operates under the Council-Manager form of government in accordance with its Charter. Legislative authority is vested in a seven-member City Council consisting of a mayor and six council members elected at large for a term of four years. The Mayor and Council appoint the City Manager, City Attorney, and Presiding Judge. The City of Avondale provides a full range of services to the public. Services include police, fire and medical, public transportation, libraries, human services, parks and recreation, streets maintenance, and general administration. The City also operates water, wastewater, and solid waste collection services.

The annual budget serves as the foundation for the City of Avondale's financial planning and control. The City Manager submits a proposed budget on or before June 1, to the City Council for review, for the fiscal year commencing the following July. The budget includes proposed expenditures and the means of funding. Various meetings are held during the months leading up to the final budget adoption including Council work sessions and a Citizen Capital Improvement Plan Committee meeting. The City Council holds public hearings prior to the budget's final adoption in order to obtain additional public feedback. At a regular Council meeting in June, the City Council formally adopts a final budget and it is then legally enacted through passage of a resolution. The resolution sets the limit for expenditures during the fiscal year. The legal level of expenditure control is at the department level for the General Fund and at the fund level for all other funds. Budgetary comparison statements and schedules, as appropriate, are provided in this report for each of these funds. The primary property tax supports city operations. The secondary property tax is used to pay principal and interest bonds issued for the construction of public infrastructure. Both primary and secondary taxes are levied by the City Council in June.

In addition to maintaining budgetary control through formal appropriation, the City maintains an encumbrance accounting system. Encumbrances are made against appropriations upon the issuance of a purchase order.

Local Economy

During fiscal year 2020, the country experienced constant change arising from the rapidly evolving Coronavirus (COVID-19) pandemic. The state of Arizona was impacted by the stay-at-home orders and business closures in response to the COVID-19 pandemic. The response to slow the spread of COVID-19 and to save lives resulted in a change to the way the public consumes goods and services. Consumers have changed from in-person retail purchases to online outlets and to store-front pickup. Similarly, restaurants offered home-delivery and curbside pickup, reducing operating costs while maintaining some portion of prior revenue streams. Other food consumption shifted to meals made at home, and along with consumer stockpiling of paper goods and cleaning/sanitizing supplies, buoyed the supermarket industry.

Meanwhile, the federal government implemented numerous strategies to preserve and stabilize the economy during the COVID-19 pandemic. The Coronavirus Aid, Relief, and Economic Security (CARES) Act was passed by Congress and signed into law by President Trump on March 27, 2020. The Act was designed to provide rapid and direct funding to preserve public health and to stabilize the economy during the response to the pandemic. The stimulus package made funding available to individuals and businesses as well as state and local governments. The city received a share of this funding from the state of Arizona to support public safety operations related to the pandemic response.

The changes in consumer habits and the financial aid have, at least temporarily, sustained the local economy. While the City's allocation of state shared revenues in fiscal year 2020 increased about 6.1%, which was at levels lower than expected, the 7.6% growth in local sales taxes during fiscal year 2020 had made up the differences.

Long-term financial planning

During the budget process, the City prepares a multi-year forecast which incorporates ongoing revenue and expenditure projections. The City also prepares a five-year Capital Improvement Project (CIP) plan to ensure sustainable construction of projects upon commencement. Summary information from the multi-year forecast and five-year CIP plan is presented to City Council during the budget preparation process.

On June 30, 1980, Arizona voters approved general propositions amending the Arizona Constitution to establish expenditure and revenue limitations for local governments. The purpose of the expenditure limitation is to control expenditures and to limit future increases in spending to adjustments for inflation, deflation, and population growth of the City. On August 30, 2016 the voters of the City approved an alternative expenditure limitation, the effect of which is that the total budgeted expenditures, of each yearly budget, become the expenditure limitation for that year on a total budget basis. This alternative limitation is effective until June 30, 2021.

Stabilization Fund Financial Policy

The City has established a two-tier stabilization fund in accordance with GASB Statement No. 54. The General Fund stabilization amount is 35% of the prior year's budgeted expenditures. The budgeted stabilization fund for fiscal year 2020 is \$21,752,584. In addition, net position in the Water and Wastewater Funds are maintained at a minimum of six months of operating expenditures which includes debt service payments but excludes depreciation expense. The Water and Wastewater Development and Equipment Replacement Funds are excluded from the operating reserve calculations. All other enterprise funds maintain a minimum of four months of operating expenses plus the amount required to meet annual debt service requirements.

Major Initiatives

The City has achieved various accomplishments throughout the fiscal year and has numerous major initiatives underway. Below are some of the highlights:

- In June 2020, Moody's issued a Aa2 rating for the City's Water and Sewer bond which is slightly above the United States of America water and wastewater systems median of Aa3. Notable credit factors for the City include a moderate-income service area, a moderate system size and very healthy debt service coverage. It also reflects an extremely small debt profile and ample liquidity.
- The Center for Digital Government (CDG) has ranked Avondale as one of the top cities in the country in its 2019 Digital Cities Survey. The award recognized cities for their commitment to and innovations in digital government. The survey focused on results achieved by cities, via the use of technology to tackle social challenges, enhance services, strengthen cybersecurity, and more. The highest-ranking cities in the survey showed great strides in leading the nation when it comes to leveraging data to improve a wide range of city services and initiatives.
- Hickman's Family Farms located its new egg washing and carton production manufacturing facility in an existing 80,000 square foot building located on the southeast corner of Lower Buckeye and Litchfield Roads. The project will create approximately 45 new jobs.
- A total of two million square feet of industrial space is under development along Van Buren Street in the industrial corridor, doubling Avondale's existing inventory. The new construction is generating interest from prospective users. These prospects represent projects worth over \$100 million in capital investment and could create several hundred new jobs in Avondale.
- In September 2019, the City Council approved a new specific plan for its city core, formerly known as Avondale City Center. Rebranded as The BLVD (The Boulevard), the revised specific plan now covers 356 acres, comprising six trendy district concepts for shopping, dining, entertainment, and living, with pedestrian-friendly streets and outdoor activities.
- Phoenix Raceway, which opened in 1964, and hosts two NASCAR events each year recently completed a \$178-million-dollar renovation. Phoenix Raceway is the host of the NASCAR National Championship for both 2020 and 2021.

Certificate of Achievement

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the City of Avondale for its Comprehensive Annual Financial Report (CAFR) for the year ended June 30, 2019. In order to be awarded the Certificate of Achievement, a governmental unit must publish an easily readable and efficiently organized CAFR, whose contents conform to program standards. Such reports must satisfy both U.S. generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a one-year. This year's report will also be submitted to GFOA for consideration under the award program.

In addition, the City also received the GFOA Distinguished Budget Presentation Award for its fiscal year 2020 annual budget document. In order to qualify for the Distinguished Budget Presentation Award, the City's budget document was judged to be proficient in several categories including as a policy document, a financial plan, an operations guide, and a communication device.

Acknowledgements

The preparation of this report would not have been possible without the efficient and dedicated services of the staff of the Finance and Budget Department. I would like to express my appreciation to all members of the department who assisted and contributed to the preparation of this report. Credit must also be given to the Mayor and Council and City Management for their leadership and continued support to help maintain high standards of professionalism in the management of the City of Avondale's finances.

Respectfully submitted,

A handwritten signature in cursive script that reads "L. Duncan".

Lindsey Duncan
Finance and Budget Director



Government Finance Officers Association

Certificate of
Achievement
for Excellence
in Financial
Reporting

Presented to

**City of Avondale
Arizona**

For its Comprehensive Annual
Financial Report
For the Fiscal Year Ended

June 30, 2019

**CITY OF AVONDALE, ARIZONA
PRINCIPAL OFFICIALS
YEAR ENDED JUNE 30, 2020**

MAYOR AND COUNCIL

Kenneth Weise, Mayor

Pat Dennis, Vice Mayor

Bryan Kilgore, Councilmember

Mike Pineda, Councilmember

Veronica Malone, Councilmember

Curtis Nielson, Councilmember

Tina Conde, Councilmember

MANAGEMENT STAFF

Charles A. Montoya, City Manager
Gina Montes, Assistant City Manager
Tracy Stevens, Deputy City Manager

**CITY OF AVONDALE, ARIZONA
ORGANIZATIONAL CHART
YEAR ENDED JUNE 30, 2020**



FINANCIAL SECTION





INDEPENDENT AUDITORS' REPORT

Honorable Mayor and City Council
City of Avondale, Arizona
Avondale, Arizona

Report on the Financial Statements

We have audited the accompanying financial statements of the governmental activities, the business-type activities, each major fund, and the aggregate remaining fund information of the City of Avondale, Arizona (City), as of and for the year ended June 30, 2020, and the related notes to the financial statements, which collectively comprise the City's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the City's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the City's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities, the business-type activities, each major fund, and the aggregate remaining fund information of the City of Avondale, Arizona as of June 30, 2020, and the respective changes in financial position and, where applicable, cash flows thereof and the statement of revenues, expenditures, and changes in fund balances – budget to actual statements for the General Fund, Dedicated Sales Tax Revenue Fund, Public Safety Sales Tax Revenue Fund, and Grants-In-Aids Fund for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and the required supplementary information, as listed in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the City of Avondale, Arizona's basic financial statements. The introductory section, statistical section and the supplementary information section (combining fund financial statements and budgetary comparison schedules and other supplementary information) are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The supplementary information section (combining fund financial statements and budgetary comparison schedules and other supplementary information) are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Honorable Mayor and City Council
City of Avondale, Arizona

The introductory and statistical sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on them.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated December 22, 2020, on our consideration of the City of Avondale, Arizona's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the result of that testing, and not to provide an opinion on the effectiveness of the City of Avondale, Arizona's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering City of Avondale, Arizona's internal control over financial reporting and compliance.



CliftonLarsonAllen LLP

Phoenix, Arizona
December 22, 2020



MANAGEMENT'S DISCUSSION AND ANALYSIS

CITY OF AVONDALE, ARIZONA
MANAGEMENT'S DISCUSSION AND ANALYSIS
JUNE 30, 2020

As management of the City of Avondale, Arizona (the City), we offer readers of the City's financial statements this narrative overview and analysis of the financial activities of the City for the fiscal year ended June 30, 2020. This discussion and analysis is designed to 1) assist the reader in focusing on significant financial issues, 2) provide an overview of the City's financial activity, 3) identify changes in the City's financial position, 4) identify any significant deviations from the City's Annual Budget and Financial Plan (the council-adopted annual budget), and 5) identify individual fund issues or concerns. The information presented in this discussion and analysis is based on currently known facts, decisions, and conditions.

This discussion and analysis has a different focus and purpose than the Letter of Transmittal presented on pages 1-5 of this report and is designed to be read in conjunction with the Letter of Transmittal, as well as the basic financial statements and the accompanying notes to the financial statements.

FINANCIAL HIGHLIGHTS

The following are some of the more significant financial highlights. Explanations for these changes are provided below and in the following sections.

- ◆ Government-wide assets and deferred outflows of resources exceeded liabilities and deferred inflows of resources at the close of June 30, 2020 by about \$1.2 billion (net position). Of this amount, \$124.1 million represents unrestricted net position, up about \$15.7 million (14.5%) from last year, which may be used to meet the City's ongoing obligations to citizens and creditors.
- ◆ Net position increased \$42.3 million (3.7%) during the year, resulting from a \$32.9 million (5.4%) increase in governmental activities net position and \$9.3 million (1.7%) increase in business-type activities net position between years.
- ◆ Governmental activities program revenues increased \$6.3 million (20.9%) and general revenues increased by \$4.9 million (5.5%) between years while expenses increased about \$9.6 million during the same period. The increase in program revenue was primarily attributed to the Coronavirus Relief Fund passed through from the Arizona State Office of the Governor to the city. \$6.8 million of the fund was used to provide approximately 4 months reimbursement of the City's Fire and Police payroll and employee related expenses in response to the COVID-19 pandemic during fiscal year 2020. The increase in general revenues was primarily attributed to the \$3.9 million increase from sales and use taxes collected during fiscal year 2020.
- ◆ Business-type activities program revenues increased \$8.6 million (25.3%) and general revenues increased by about \$0.5 million (19.3%) over the previous year, while expenses increased about \$5.8 million during the same period. The increase in program revenues was attributed to the \$7.7 million of voluntary nonexchange dedication of water and sewer infrastructures easements received from third parties in fiscal year 2020.
- ◆ Government-wide assets increased about \$50.5 million (3.9%) over the prior year. This was largely due to an increase in capital assets of \$21.0 million between years, which includes \$3.8 million addition of the City's Police Headquarters expansions and \$4.7 million addition of Care1st Avondale Resource Center.
- ◆ Government-wide liabilities increased about \$10.4 million (6.3%) over the prior year. The increase was primarily due to the issuance of 2020 Revenue Obligation Bonds of \$10.1 million.
- ◆ At year-end, the governmental funds reported combined fund balance of \$151.6 million, an increase of \$14.0 million over the previous year. Of this amount, about \$113.5 million was either externally restricted or internally assigned or committed to specific purposes. The unassigned fund balance increased by about \$15.4 million when compared to the prior year.

**CITY OF AVONDALE, ARIZONA
MANAGEMENT'S DISCUSSION AND ANALYSIS
JUNE 30, 2020**

- ◆ Combined governmental fund revenues of \$117.8 million increased \$12.1 million and expenditures of \$114.9 million increased \$8.5 million between years.
- ◆ General Fund revenues exceeded budgeted revenues by \$5.2 million, while expenditures were \$12.5 million less than final budgeted expenditures during the year, resulting in a net budgetary savings of \$17.7 million.

OVERVIEW OF THE FINANCIAL STATEMENTS

The discussion and analysis provides an introduction to the City's basic financial statements. The basic financial statements consist of three components: 1) government-wide financial statements, 2) fund financial statements, and 3) notes to the financial statements. This report also contains other supplementary information, some of which is required, that provides additional detail information to support the basic financial statements.

Government-wide Financial Statements

The government-wide financial statements are designed to provide a broad overview of the City's finances in a manner similar to a private-sector business. All of the City's activities, except those of a fiduciary nature, are included in these statements.

The City's activities are presented in two columns; governmental activities and business-type activities. A total column is also presented for the City.

- ◆ Governmental activities include the City's basic services such as general government (administration), public safety (police and fire), highways and streets, health and welfare, economic and community development, culture and recreation, and transportation. These activities are mainly supported by general revenues.
- ◆ Business-type activities include private sector-type activities such as city-owned water, wastewater, and sanitation systems that provide services to city residents and businesses. These activities are primarily supported by user charges and fees.

The Statement of Net Position presents information on all of the City's assets, deferred outflows of resources, and liabilities and deferred inflows of resources, with the difference reported as net position. The focus on net position is important because increases and decreases in net position may serve as a useful indicator of whether the financial position of the City is improving or deteriorating. Increases in net position may indicate an improved financial position, but decreases in net position may not necessarily indicate the City's financial position is deteriorating. Instead, decreases in net position may reflect situations where the City has used previously accumulated funds to finance its operations or projects such as cash funding of capital projects. As a result, readers must consider and evaluate other financial and nonfinancial indicators to effectively assess the City's overall financial health.

The Statement of Activities presents information showing how the City's net position changed during the most recent fiscal year. Since the economic resources measurement focus and full accrual accounting are used for the government-wide financial statements, all changes in net position are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of the related cash flows. Thus, revenues and expenses are reported for some items that will only result in cash flows in future fiscal periods (e.g., uncollected taxes and long-term debt that has not matured). This statement also focuses on both the gross and net costs of city functions based only on direct functional revenues and expenses. This focus is designed to show the extent to which city functions are dependent on general revenues for support.

**CITY OF AVONDALE, ARIZONA
MANAGEMENT'S DISCUSSION AND ANALYSIS
JUNE 30, 2020**

The government-wide financial statements can be found on pages 28 through 31 of this report.

Fund Financial Statements

A fund is a grouping of related accounts that is used to maintain control over resources that have been segregated for specific activities or objectives. The City uses fund accounting to ensure and demonstrate compliance with finance-related legal requirements and to establish and maintain control over city assets as part of its fiduciary responsibility. All city funds are categorized as governmental funds, proprietary funds, or fiduciary funds. The fund financial statements focus on the City's major funds.

Governmental Funds — Government funds account for essentially the same functions reported as governmental activities in the government-wide financial statements. However, unlike the government-wide financial statements, governmental fund financial statements focus on near-term inflows and outflows of spendable resources, as well as on balances of spendable resources available at year-end. Such information may be useful in evaluating the City's near-term financing requirements and determining what financial resources are available in the near future to fund city programs.

Because the focus of governmental funds is narrower than that of the government-wide financial statements, it may be useful to compare the information presented for the governmental funds with similar information presented for governmental activities in the government-wide financial statements. By doing so, readers may better understand the long-term impact of the City's near-term financing decisions. To facilitate this comparison, reconciliations of the differences between the governmental fund balance sheet and statement of revenues, expenditures, and changes in fund balances and government-wide statement of net position and statement of activities are provided immediately following the respective governmental fund statements. These reconciliations are on pages 35 and 38, respectively.

The City maintains seventeen governmental funds. Information is presented separately in the governmental fund balance sheet and the governmental fund statement of revenues, expenditures, and changes in fund balances for the General Fund, Dedicated Sales Tax Revenue Fund, Public Safety Sales Tax Revenue Fund, Development Fees Fund, Grant-In-Aids Fund, and Other Capital Projects Fund, all of which are considered to be major funds. Data from the other governmental funds are combined into a single, aggregated presentation. Individual fund data for each of these nonmajor governmental funds is provided in the form of combining financial statements and schedules.

The City adopts an annual budget and legally allocates (appropriates) available monies for all governmental funds. Budgetary comparison statements are presented for all major funds, except for the Development Fees Fund, on pages 39-42. Budgetary comparison schedules are presented for the remaining governmental funds on pages 99-100 and 109-119.

Proprietary Funds — Proprietary funds use the economic resources measurement focus and full accrual accounting, the same method used by private sector business. The City maintains seven proprietary funds.

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Enterprise Funds — Enterprise funds account for activities that primarily serve customers outside the city unit. The enterprise funds generally provide information similar to the business-type activities column of the government-wide financial statements, but provide more detailed information such as cash flows. The City uses separate enterprise funds to account for its water, wastewater and sanitation system services. These funds are considered to be major funds of the City.

Internal Service Funds — Internal service funds account for activities where the City is the primary customer. Because these funds primarily provide services to governmental activities, the internal service fund account balances and activities are reported in the governmental activities column on the government-wide financial statements. The internal service fund account balances and activities are presented in a single, aggregated column on the proprietary fund financial statements. The operating income or loss of the internal service funds is allocated to the various user functions on the government-wide statement of activities. Since the City partially allocates the operating income or loss of the internal service funds to business-type activities on the government-wide financial statements, a reconciliation is provided on the face of the proprietary fund financial statements to reconcile total enterprise fund net position and changes in net position on the fund financial statements to the business-type activities column on the government-wide financial statements. The City uses separate internal service funds to account for its risk management program, workers' compensation, printing services, and fleet management services. In FY20, the City has improved the efficiency of capturing the City's printing service costs by eliminating the Printing Service Fund and centralizing the budget to IT department, then allocating the costs to different department through indirect charges. Additional information on the internal service funds is provided in combining statements.

Fiduciary Funds — Fiduciary funds account for resources held for the benefit of parties outside of the City. Fiduciary funds are not reported in the government-wide financial statements because the resources of these funds are not available to support city programs. The accounting used for fiduciary funds is much like that used for proprietary funds.

Notes to Basic Financial Statements

Notes to the financial statements provide additional information that is essential to a full understanding of the data provided in the government-wide and fund financial statements and should be read with these financial statements. The notes can be found on pages 51 through 98 of this report.

Required Supplementary Information Other Than MD&A

In addition to the basic financial statements and accompanying notes, this report also presents certain required supplementary information concerning the City's budget process and employer pension plans. Governments have the option of including budgetary comparison statements of the General Fund and major special revenue funds either as part of the fund financial statements within the basic financial statements or as required supplementary information. The City has elected to present budgetary comparison statements as part of the basic financial statements.

**CITY OF AVONDALE, ARIZONA
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Government-Wide Financial Analysis

The following tables, graphs and analyses discuss the financial position and changes in the financial position of the City as of and for the year ended June 30, 2020, with comparative information from June 30, 2019.

Net Position — As noted earlier, net position may serve over time as a useful indicator of the City's financial position. In the case of the City, assets and deferred outflows of resources exceeded liabilities and deferred inflows of resources by about \$1.2 billion at the close of the most recent year.

**Net Position
At June 30**

	Governmental Activities		Business-type Activities		Total Government	
	2020	2019	2020	2019	2020	2019
Current and Other Assets	\$ 173,178,861	\$ 157,110,158	\$ 120,691,412	\$ 107,209,807	\$ 293,870,273	\$ 264,319,965
Capital Assets, Net	610,617,276	585,141,562	449,846,616	454,337,422	1,060,463,892	1,039,478,984
Total Assets	783,796,137	742,251,720	570,538,028	561,547,229	1,354,334,165	1,303,798,949
Deferred Outflows of Resources						
Deferred Charge on Debt Refunding	1,695,598	2,061,078	5,976	7,470	1,701,574	2,068,548
Deferred Outflows Related to Pensions and Other Postemployment Benefits	17,170,297	15,924,026	1,126,722	1,258,859	18,297,019	17,182,885
Total Deferred Outflows of Resources	18,865,895	17,985,104	1,132,698	1,266,329	19,998,593	19,251,433
Current and Other Liabilities	27,472,589	24,615,883	7,605,016	7,418,171	35,077,605	32,034,054
Long-Term Liabilities	124,752,681	117,048,524	15,541,086	15,859,244	140,293,767	132,907,768
Total Liabilities	152,225,270	141,664,407	23,146,102	23,277,415	175,371,372	164,941,822
Deferred Inflows of Resources						
Deferred Inflows Related to Pensions and Other Postemployment Benefits	3,196,258	4,260,215	513,701	855,612	3,709,959	5,115,827
Net Position:						
Net Investment in Capital Assets	557,935,106	534,401,329	440,909,317	444,455,024	998,844,423	978,856,353
Restricted	48,362,118	43,841,243	23,923,066	21,858,516	72,285,184	65,699,759
Unrestricted	40,943,280	36,069,630	83,178,540	72,366,991	124,121,820	108,436,621
Total Net Position	\$ 647,240,504	\$ 614,312,202	\$ 548,010,923	\$ 538,680,531	\$ 1,195,251,427	\$ 1,152,992,733

At year-end, the City is able to report positive balances in all three categories of net position for both governmental and business-type activities. Total net position increased about \$42.3 million from the prior year.

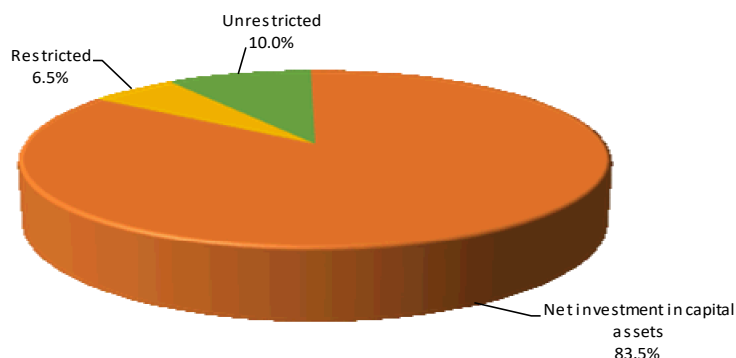
The largest portion of net position, net investment in capital assets of \$998.8 million, reflects the City's investment in capital assets, net of accumulated depreciation and amortization, reduced by outstanding balances of bonds and other borrowings that are attributable to the acquisition, construction, or improvement of those assets. Deferred outflows of resources related to the debt also are included in this component of net position. The City uses these capital assets to provide services to its citizens. Consequently, these assets are not available for future spending. Although the capital assets are reported net of related debt, it should be noted that the resources needed to repay this debt must be provided from other sources since the capital assets cannot be used to liquidate these liabilities. Net investment in capital assets increased about \$20.0 million between years.

Restricted net position of \$72.3 million represents resources with constraints placed on their use externally either by creditors, grantors, contributors, laws and regulations of other governments, or imposed by law through constitutional provisions or enabling legislation. Restricted net position increased about \$6.6 million between years, which is largely due to increase in resources restricted for capital projects and debt service.

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Unrestricted net position of \$124.1 million may be used to meet the City's ongoing obligations to its citizens and creditors. Unrestricted net position increased about \$15.7 million between years.

**Government-wide Net Position
At June 30, 2020**



Changes in Net Position

The following table presents revenues, expenses, and changes in net position of the City for the fiscal years ended June 30, 2020, and June 30, 2019.

**Changes in Net Position
Year Ended June 30**

	Governmental Activities		Business-type Activities		Total (Primary Government)	
	2020	2019	2020	2019	2020	2019
Revenues:						
Program Revenues						
Charges for Services	\$ 6,099,146	\$ 5,574,441	\$ 31,292,823	\$ 30,866,450	\$ 37,391,969	\$ 36,440,891
Operating Grants and Contributions	16,024,179	10,156,821	-	-	16,024,179	10,156,821
Capital Grants and Contributions	14,634,525	14,680,697	11,498,981	3,293,949	26,133,506	17,974,646
General Revenues						
Sales and Use Taxes	55,933,503	52,003,028	-	-	55,933,503	52,003,028
Property Taxes	7,308,634	7,114,194	-	-	7,308,634	7,114,194
Franchise Taxes	1,136,532	1,223,384	-	-	1,136,532	1,223,384
State-Shared Revenues	23,670,592	22,314,405	-	-	23,670,592	22,314,405
Investment Income	3,536,012	3,113,051	3,197,825	2,678,897	6,733,837	5,791,948
Capital Contribution	-	-	-	-	-	-
Gain (Loss) on Sale of Capital Assets	(27,200)	590,335	44,235	38,168	17,035	628,503
Miscellaneous	1,835,572	2,167,739	-	-	1,835,572	2,167,739
Total Revenues	130,151,495	118,938,095	46,033,864	36,877,464	176,185,359	155,815,559
Expenses:						
General Government	17,518,396	13,286,395	-	-	17,518,396	13,286,395
Public Safety	42,226,785	38,891,455	-	-	42,226,785	38,891,455
Highways and Streets	14,895,706	14,906,217	-	-	14,895,706	14,906,217
Health and Welfare	3,387,949	3,476,278	-	-	3,387,949	3,476,278
Economic and Community Development	8,066,194	6,924,053	-	-	8,066,194	6,924,053
Culture and Recreation	7,338,930	6,790,207	-	-	7,338,930	6,790,207
Transportation	1,212,967	1,357,022	-	-	1,212,967	1,357,022
Interest on Long-Term Debt	2,276,266	1,722,511	-	-	2,276,266	1,722,511
Water	-	-	16,994,862	15,843,476	16,994,862	15,843,476
Wastewater	-	-	14,409,900	10,355,180	14,409,900	10,355,180
Sanitation	-	-	5,598,710	5,028,104	5,598,710	5,028,104
Total Expenses	96,923,193	87,354,138	37,003,472	31,226,760	133,926,665	118,580,898
Increase (Decrease) in Net Position Before Transfers	33,228,302	31,583,957	9,030,392	5,650,705	42,258,694	37,234,661
Transfers	(300,000)	(300,000)	300,000	300,000	-	-
Increase (Decrease) in Net Position	32,928,302	31,283,957	9,330,392	5,950,705	42,258,694	37,234,661
Net Position - July 1	614,312,202	583,028,245	538,680,531	532,729,826	1,152,992,733	1,115,758,071
Net Position - June 30	\$ 647,240,504	\$ 614,312,202	\$ 548,010,923	\$ 538,680,531	\$ 1,195,251,427	\$ 1,152,992,732

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Total 2020 revenues of \$176.2 million increased about \$20.4 million over the previous year. Governmental activities revenues increased by \$11.2 million and business-type activities revenues increased about \$9.2 million over the prior year, while expenses decreased \$9.6 million for governmental and decreased \$5.8 million for business-type activities during the same period.

Governmental Activities

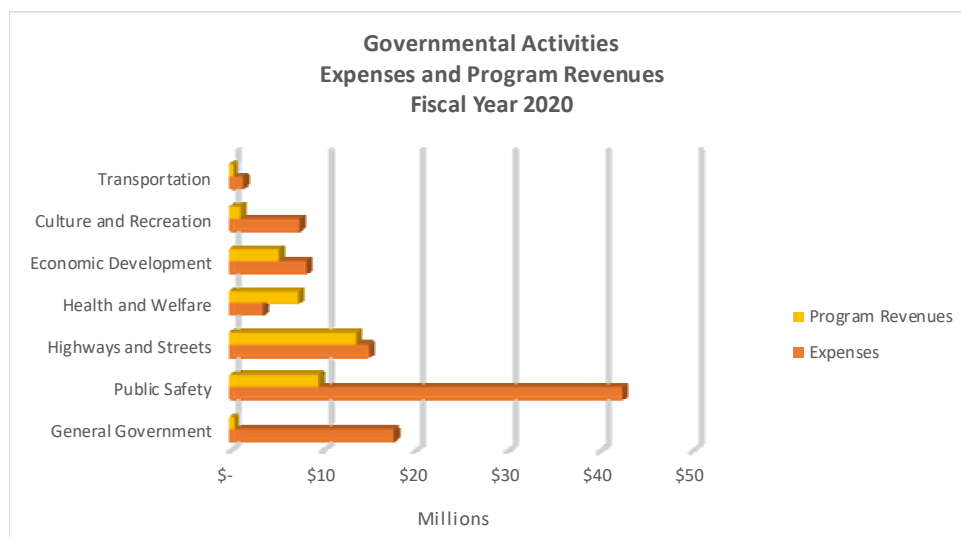
Governmental activities increased the City's net position before transfers by \$33.2 million during the year, compared to \$31.6 million in the prior year. The increase between years was largely due to increases in general and program revenues of about \$4.9 million and \$6.3 million, respectively, over the prior year, offset by an increase in expenses of about \$9.6 million between years. Governmental activities accounted for 73.9% of the City's total revenues and 72.4% of total expenses during the year. Program revenues of \$36.8 million were 28.2% of governmental activities revenues during the year, compared to \$30.4 million, or 25.6%, of expenses in 2019.

Program revenues increased between years largely due to increase in operating grants and contributions of \$5.8 million, which were mainly due to Coronavirus relief grant funding received during the year.

General revenues increased between years mainly due to the following:

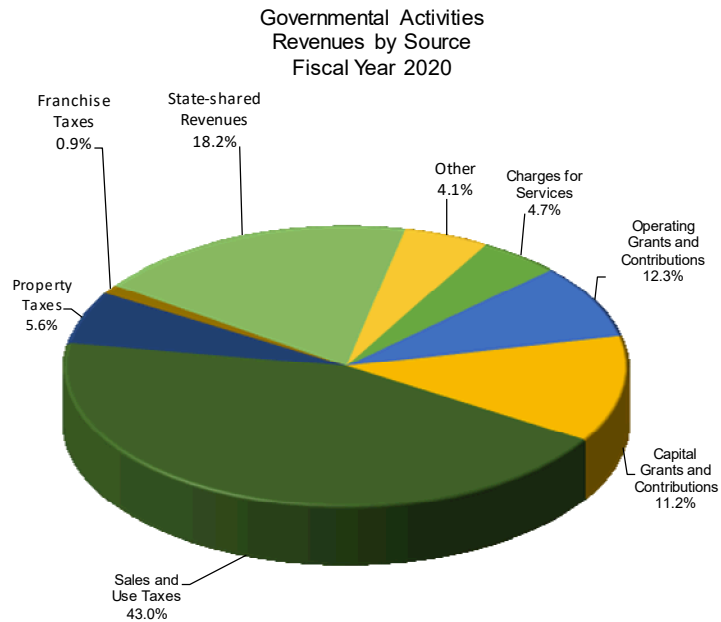
- ◆ Sales and use taxes increased \$3.9 million. An increase in sales and use tax revenues of about 7.6% was projected based on collection trends by tax rate classification and assuming a stable population and employment.
- ◆ State-Shared revenues increased \$1.4 million.

The following graph shows governmental activities functional revenues and expenses in order to demonstrate the extent to which the governmental functions produce direct revenues to offset related program expenses. It should be noted that this graph is not intended to represent a full cost allocation to these functions. Expenses not covered by direct program revenues are covered by the City's general revenues, which consist primarily of taxes and state-shared revenue.

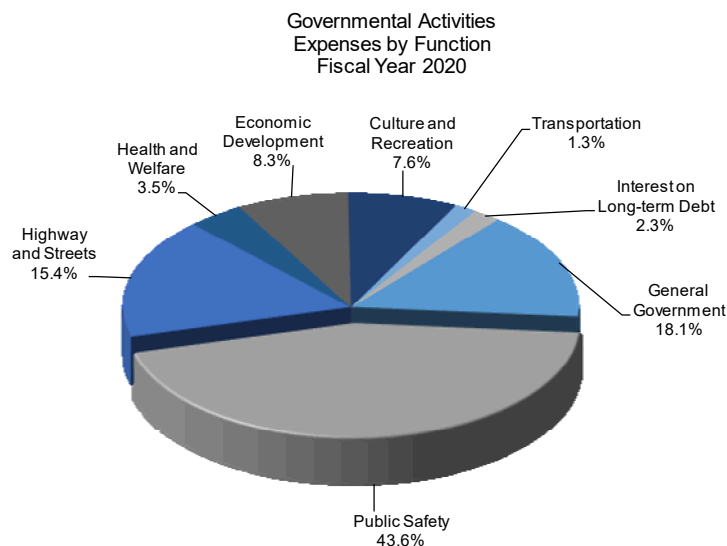


**CITY OF AVONDALE, ARIZONA
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As seen in the following graph, the largest governmental activities revenue sources are sales and use taxes of \$55.9 million (43.0%), followed by state-shared revenues of \$23.7 million (18.2%), operating grants and contributions of \$16.0 million (12.3%) and capital grants and contributions of \$14.6 million (11.2%).



The City's largest governmental activities expenses by function include public safety at \$42.2 million (43.6%), followed by general government at \$17.5 million (18.1%) and highways and streets at \$14.9 million (15.4%).



**CITY OF AVONDALE, ARIZONA
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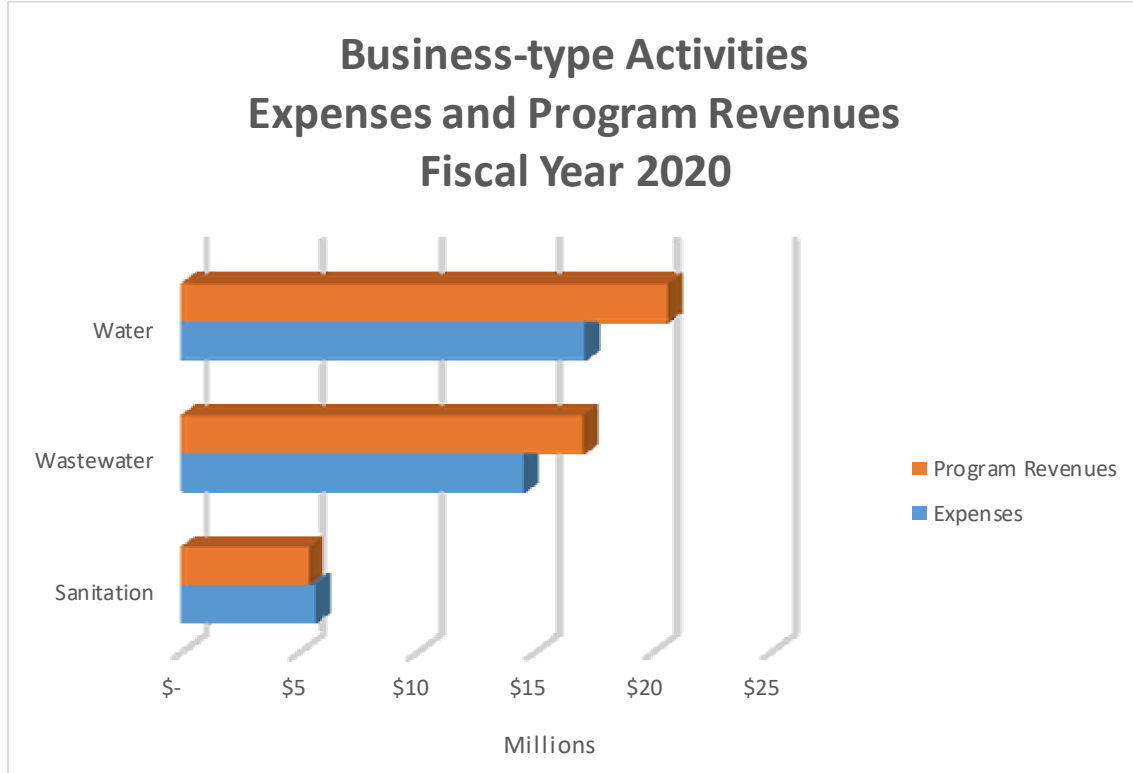
Business-type Activities

Business-type activities increased net position before transfers by \$9.0 million during the year, an increase of about \$3.4 million over the prior year. Program revenues increased \$8.6 million and general revenues increased about \$0.5 million over the prior year, respectively, while expenses increased about \$5.8 million from the previous year. Business-type activities accounted for 26.1% of the City's total revenues and 27.6% of total expenses during the year. Program revenues of \$42.8 million were 115.6% of business-type expenses during the year, compared to \$34.2 million, or 109.4%, of expenses in 2019.

The significant change in business-type activities was the \$7.7 million capital contribution received for infrastructure.

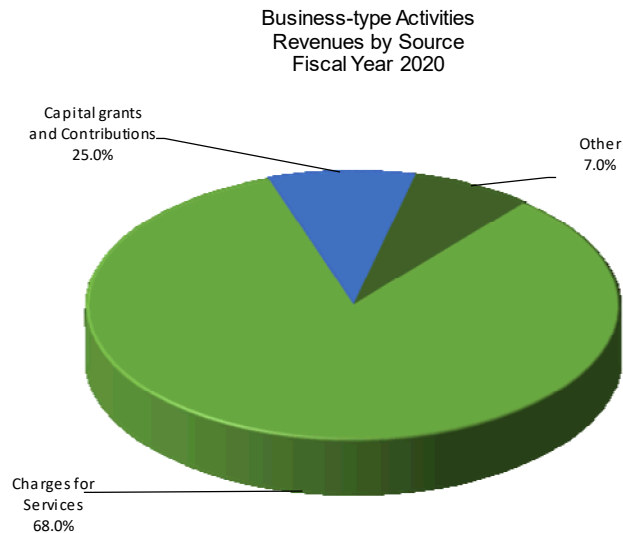
Business-type activities program expenses increased by \$5.8 million, mainly due to the increase in depreciation expenses of \$2.7 million in Wastewater fund.

The following graph shows the revenues and expenses of the business-type activities in order to demonstrate the extent to which the business-type activities produce direct revenues to offset related program expenses. It should be noted that this graph is not intended to represent a full cost allocation to these activities. As noted previously, expenses not covered by direct program revenues are covered by the City's general revenues.



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The City's largest business-type activity is water services with program expenses of \$17.0 million and program revenues of \$20.5 million, followed by wastewater services with expenses of \$14.4 million and revenues of \$16.9 million, during the year.



Charges for services, which consist almost entirely of city water sales, sewer fees, and refuse collection fees, provided the largest share of revenues at \$31.3 million or 68.0%.

FINANCIAL ANALYSIS OF THE CITY'S FUNDS

As noted earlier, the City uses fund accounting to ensure and demonstrate compliance with finance-related legal requirements and to establish and maintain control over city assets as part of its fiduciary responsibility.

Governmental Funds

The focus of the City's governmental fund financial statements is to provide information on near-term inflows, outflows, and balances of spendable resources. Such information is useful in assessing the City's financing requirements. In particular, unassigned fund balance may serve as a useful measure of the City's resources available for spending at year-end.

The financial performance of the City, as a whole, is reflected in its governmental funds. As of June 30, 2020, the City reported combined fund balance of \$151.6 million, an increase of \$14.0 million over the previous year. About \$36.7 million of the fund balance is unassigned and \$28.2 million is assigned. These balances are available for spending at the City's discretion. The remainder of the fund balance consists of nonspendable balances of about \$1.4 million, restricted balances of \$63.4 million, and committed balances of \$21.9 million.

**CITY OF AVONDALE, ARIZONA
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General Fund — accounts for all city financial resources not required to be accounted for in other funds. This fund is the City's primary operating fund and accounts for many major functions of the City such as general government, public safety, health and welfare, economic and community development, and culture and recreation. At year-end, fund balance of the General Fund was \$59.3 million compared to \$57.5 million in the prior year, an increase of \$1.8 million. The overall increase in fund balance during the year was largely due to revenues increasing by about \$4.1 million over the previous year. Taxes and intergovernmental revenues increased \$3.5 million in total, and accounted for most of the revenue increase between years. Expenditures decreased by about \$2.6 million compared to the prior year.

Dedicated Sales Tax Revenue Fund — accounts for the voter-approved 0.5-cent dedicated sales tax revenues. The use of these revenues is restricted to maintaining, improving, renovating, and constructing water and sewer systems and streets that serve city neighborhoods, as well as transportation projects and services. The tax was approved by the voters and became effective in July 2001, and amended by voters in September 2008, to include transportation projects and services.

Revenues increased about \$0.7 million over the previous year. Transfer out of \$8.1 million were to finance various construction projects. Net fund activities increased fund balance by about \$1.1 million over the previous year.

Public Safety Sales Tax Revenue Fund — accounts for the voter-approved 0.5-cent public safety sales tax revenues. The use of these revenues is restricted to providing increased public safety services for city neighborhoods. The tax was approved by the voters and became effective in January 2004.

Revenues increased about \$0.7 million over the prior year. Expenditures increased \$0.4 million over the prior fiscal year. Net fund activities increased fund balance by about \$1.8 million over the previous year.

Development Fees Fund — accounts for development fees collected from developers for growth-related development; and construction based on the impact the development will have on city services and infrastructure, as well as bond proceeds, sales tax and grant revenues, other revenues, and fund transfers that are restricted, committed or assigned to debt service or capital development and maintenance. The fee is allowable under A.R.S. §9-463.05. Development fees are collected with each new building permit issued. The City charges development fees for streets, libraries, parks and recreation, police and fire, and general government projects.

Revenues increased \$0.9 million over the prior year. Expenditures decreased \$7.0 million from the previous year. The decrease was almost largely due to a decrease in spending on street construction and improvement projects and park renovations and enhancements between years.

Grants-in-Aid Fund — accounts for grant funding and private donations/contributions for specific purposes not accounted for in other special revenue funds or otherwise committed or restricted to capital projects. Revenues increased about \$5.8 million over the previous year while expenditures increased by \$6.4 million from prior year. The increase was due to the receipt of Coronavirus relief funding and the grant related expenditures.

Other Capital Projects Fund — accounts for revenues and expenditures relating to the acquisition of capital items. The fund issued \$10.1 million of new debt during fiscal year 2020, which was used for the acquisition and construction of capital projects.

**CITY OF AVONDALE, ARIZONA
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Net fund activities increased fund balance by \$4.1 million over the prior year.

Nonmajor government funds had a decrease of \$3.3 million in revenues, mainly due to the decrease in intergovernmental revenues while expenditures also decreased by \$4.3 million.

Proprietary Funds — the proprietary fund financial statements are prepared using the same measurement focus and accounting basis as the government-wide financial statements, but they provide more detail since each major enterprise fund is presented discretely. Of the total enterprise funds net position of \$548.0 million, \$440.9 million consisted of net investment in capital assets, \$23.9 million was restricted, and \$83.2 million was unrestricted. The factors concerning the finances of these funds, as well as the changes in net position, have been addressed previously during the discussion of the City's business-type activities.

BUDGETARY HIGHLIGHTS

The City's Annual Budget and Financial Plan (council-adopted budget) establishes the legal level of expenditure control. Amendments to the adopted budget may occur throughout the year, in a legally permissible manner, between departments within the General Fund and within funds in all other funds. During the year, budget adjustments did occur. None of the adjustments increased the City's total budget and all budget amendments were routine in nature.

On August 30, 2016, city voters approved an alternative expenditure limitation (Home Rule Option), the effect of which allowed the City's total budgeted expenditures of the adopted budget to become the expenditure limitation for that year on a total budget basis. This alternative expenditure limitation is effective for four years.

Budgetary comparison statements are required for the General Fund and all major special revenue funds. These statements compare the original adopted budget, the budget as amended throughout the year, and the actual revenues and expenditures. Budgetary comparison statements for the General Fund and major special revenue funds can be found on pages 39-41. Budgetary comparison schedules for all other governmental funds can be found on pages 99-100 and 103-119.

General Fund Budgetary Analysis

General Fund revenues of \$74.6 million exceeded budgeted inflows by \$5.2 million or 7.5%, while expenditures and other financing uses of \$72.8 million was only 85.3% of final budgeted outflows of \$85.3 million. A more detailed analysis of General Fund revenues, expenditures, and other financing sources and use is outlined in the governmental funds section of this analysis.

During the year, the original budget was amended in a legally permissible manner. All budget amendments were routine in nature, and no budget adjustments increased the budget on a total funds basis. The original General Fund expenditures budget of \$61.0 million was amended by \$2.7 million to the final expenditure budget of \$63.6 million.

**CITY OF AVONDALE, ARIZONA
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JUNE 30, 2020**

CAPITAL ASSETS AND DEBT ADMINISTRATION

Capital Assets

As of June 30, 2020, the City had invested about \$1.1 billion in governmental and business-type capital assets, net of accumulated depreciation. Total depreciation expense for the year was \$36.8 million, with \$18.4 million attributed to governmental activities and \$18.4 million to business-types activities.

The following schedule presents capital asset balances as of June 30, 2020, and June 30, 2019.

	Governmental Activities		Business-type Activities		Total	
	2020	2019	2020	2019	2020	2019
Land	\$ 282,008,688	\$ 271,014,235	\$ 16,284,499	\$ 16,273,312	\$ 298,293,187	\$ 287,287,547
Buildings and Improvements	50,270,450	52,488,355	-	-	50,270,450	52,488,355
Improvements other than Building	40,234,036	23,289,438	401,022	441,462	40,635,058	23,730,900
Vehicles, Furniture and Equipment	12,303,557	12,815,888	22,414,697	23,768,726	34,718,254	36,584,614
General Infrastructure	206,584,891	210,852,538	-	-	206,584,891	210,852,538
Water System	-	-	203,303,386	205,683,901	203,303,386	205,683,901
Sewer System	-	-	141,150,453	141,287,815	141,150,453	141,287,815
Wastewater Treatment System	-	-	61,241,565	62,243,190	61,241,565	62,243,190
Intangible Assets	1,304,710	1,370,219	3,833,680	3,908,194	5,138,390	5,278,413
Construction in Progress	17,910,944	13,310,889	1,217,314	730,822	19,128,258	14,041,711
Total	<u>\$ 610,617,276</u>	<u>\$ 585,141,562</u>	<u>\$ 449,846,616</u>	<u>\$ 454,337,422</u>	<u>\$ 1,060,463,892</u>	<u>\$ 1,039,478,984</u>

The City's combined capital assets balances increased \$21.0 million between years, with governmental activities increasing by about \$25.5 million and business-type activities decreasing by about \$4.5 million. More detail regarding the changes in capital asset balances is provided below.

Governmental Activities

The \$25.5 million increase between years consisted of \$63.4 million of capital assets additions, including \$19.2 million of transfers from construction in progress, offset by \$18.4 million in accumulated depreciation during the year. Capital additions included \$23.8 million of new construction in progress.

Business-type Activities

The \$4.5 million decrease between years consisted of \$14.6 million of capital additions, and \$18.4 million in depreciation expense during the year. Capital additions included \$1.1 million of new construction in progress.

The City has adopted a five-year capital improvement plan for years 2021 through 2025, with budgeted capital outlays totaling \$249.1 million. The plan, which includes \$113.8 million of budgeted capital outlays for 2021, takes into consideration all known capital needs and ties potential revenue sources to those needs. Anticipated funding for 2021 is through a combination of existing fund balances, development (impact) fees, bond proceeds, outside funding sources such as grants and intergovernmental cost-sharing agreements, operating and nonoperating revenues, and other financing sources. The capital improvement plan is updated annually as part of the City's formal budgetary process.

**CITY OF AVONDALE, ARIZONA
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JUNE 30, 2020**

Debt Administration

As of June 30, 2020, the City had total long-term obligations outstanding of \$156.8 million, an increase of \$8.0 million (5.4%) from the previous year. Of this balance, \$139.8 million was attributable to governmental activities and \$17.0 million was attributable to business-type activities. Of the total outstanding bonds of \$68.0 million, excluding unamortized discounts and premiums, \$37.7 million are general obligation bonds backed by the full faith and credit of the City, and \$30.3 million were revenue bonds secured by pledges of specific revenue sources of the City. Of the \$68.0 million of outstanding bonds, \$8.2 million is due within one year. Of the remaining long-term obligations, \$68.1 million reflects the City's net pension and other postemployment benefit (OPEB) liabilities and \$4.1 million of obligations under capital leases.

On July 25, 2019, the City issued \$10,096,000 of Direct Placement Pledged Revenue Obligation Bonds, Series 2019 to provide funds for the acquisition and construction of capital projects and to pay related bond issue costs. The issuance yielded \$10,096,000 of net bond proceeds less bond issue costs of \$95,400.

The Arizona Constitution imposes certain debt limitations on the City of 6% and 20% of the City's net full cash property assessed value (formerly referred to as secondary assessed valuation). The City's legal debt margin at June 30, 2020 and 2019, is \$29.9 million and \$25.8 million in the 6% capacity and \$99.9 million and \$84.7 million in the 20% capacity, respectively. Additional debt limitation and capacity information can be found in the statistical section of this report.

The following schedule presents a summary of the City's outstanding long-term obligations as of June 30, 2020 and 2019.

	Governmental Activities		Business-type Activities		Total	
	2020	2019	2020	2019	2020	2019
Compensated Absences	\$ 6,286,569	\$ 5,869,497	\$ 729,508	\$ 741,298	\$ 7,016,077	\$ 6,610,795
Capital Leases Payable	4,087,917	4,358,587	-	-	4,087,917	4,358,587
Claims Payable	2,552,240	1,797,451	-	-	2,552,240	1,797,451
General Obligation Bonds	37,695,000	39,940,000	-	-	37,695,000	39,940,000
Pledged Revenue Obligations	22,377,921	17,476,549	363,079	498,452	22,741,000	17,975,001
Water and Sewer Revenue Bonds	-	-	7,580,000	8,270,000	7,580,000	8,270,000
Unamortized Premiums and Discounts, Net	6,113,948	6,842,359	933,953	1,049,510	7,047,901	7,891,869
Net Pension/OPEB Liabilities	60,641,081	55,076,228	7,412,389	6,833,952	68,053,470	61,910,180
Total	<u>\$ 139,754,676</u>	<u>\$ 131,360,671</u>	<u>\$ 17,018,929</u>	<u>\$ 17,393,212</u>	<u>\$ 156,773,605</u>	<u>\$ 148,753,883</u>

ECONOMIC FACTORS

Throughout fiscal year 2020 and up until the COVID-19 pandemic, the Avondale economy had been experiencing sustained growth, showing substantial recovery from the Great Recession. Unemployment rates had fallen, businesses were expanding, and numerous commercial projects were planned or were under construction. The City enjoyed steady growth in the revenue for the first nine months of FY2020. City sales tax collections had increased 7.6% in FY2020 and similar trends were seen with other General Fund revenue sources such as state-shared revenues.

While the pandemic had the effect of slowing year-over-year revenue growth, since the onset of the pandemic, City revenues have continued to increase overall. Changes in consumer habits from in-person to online purchases and the effects of The Coronavirus Aid, Relief, and Economic Security (CARES) Act, have sustained the local economy. In the 41 weeks since the City began reacting to the pandemic, local revenue sources have remained strong.

**CITY OF AVONDALE, ARIZONA
MANAGEMENT'S DISCUSSION AND ANALYSIS
JUNE 30, 2020**

The City's fiscal year 2021 budget is structurally balanced and maintains generous reserve requirements. The City maintains a minimum General Fund balance of no less than 35% of the prior year's uses of General Fund. Reserves allow the City to ensure continuity of operations in case of emergency or an economic downturn. With uncertain economic conditions looming, some of these reserves could be called into play in FY2021, but it is currently unlikely to be needed.

Request for Information

This financial report is designed to provide our citizens, taxpayers, customers, investors, and creditors with a general overview of the City's finances and to demonstrate the City's accountability for the money it receives. If you have any questions about this report or need additional financial information, please visit our website at <http://www.avondaleaz.gov> or contact:

City of Avondale
Finance and Budget Department
11465 W. Civic Center Drive, Suite 250
Avondale, Arizona 85323
(623) 333-2000

Basic Financial Statements

Government-Wide Financial Statements include the Statement of Net Position and Statement of Activities, which use the economic resource measurement focus and accrual basis of accounting for financial reporting.

Governmental Fund Financial Statements include the Balance Sheet and the Statement of Revenues, Expenditures, and Changes in Fund Balances for the governmental funds, which use the current financial resources measurement focus and modified accrual basis of accounting for financial reporting.

Proprietary Fund Financial Statements include the Statement of Net Position, Statement of Revenues, Expenses and Changes in Fund Net Position, and Statement of Cash Flows for the business-types activities, which use the economic resource measurement focus and accrual basis of accounting for financial reporting.

Fiduciary Fund Financial Statements include the Statement of Fiduciary Net Position and the Statement of Changes in Fiduciary Net Position for assets being held for the benefit of parties outside of the City. The reporting focus is upon net position and changes in net position and employs accounting principles similar to proprietary funds.

Notes to the Financial Statements include a summary of significant accounting policies and other disclosures considered essential to the fair presentation of the financial statements.

CITY OF AVONDALE, ARIZONA
STATEMENT OF NET POSITION
JUNE 30, 2020

	Primary Government		
	Governmental	Business-Type	
	Activities	Activities	Total
ASSETS			
Current Assets:			
Cash and Investments	\$ 93,077,396	\$ 37,986,944	\$ 131,064,340
Receivables, Net:			
Accounts	485,814	7,069,147	7,554,961
Taxes	6,804,121	166,155	6,970,276
Interest	168,083	199,757	367,840
Due from Other Governments	2,142,098	-	2,142,098
Internal Balances	(715,231)	715,231	-
Inventories	245,702	891,389	1,137,091
Prepaid Items	1,276,430	1,003	1,277,433
Restricted Cash:			
Customer Deposits	-	3,314,026	3,314,026
Cash with Fiscal Agents	23,229,713	990,670	24,220,383
Total Current Assets	126,714,126	51,334,322	178,048,448
Noncurrent Assets:			
Water Storage Credits Inventory	-	16,185,434	16,185,434
Investments	45,873,364	53,171,656	99,045,020
Equity in Joint Ventures	591,371	-	591,371
Capital Assets:			
Nondepreciable	299,919,632	19,025,568	318,945,200
Depreciable, Net	310,697,644	430,821,048	741,518,692
Total Noncurrent Assets	657,082,011	519,203,706	1,176,285,717
Total Assets	783,796,137	570,538,028	1,354,334,165
DEFERRED OUTFLOWS OF RESOURCES			
Deferred Charge on Debt Refunding	1,695,598	5,976	1,701,574
Deferred Outflows Related to Pensions/OPEB	17,170,297	1,126,722	18,297,019
Total Deferred Outflows of Resources	18,865,895	1,132,698	19,998,593
LIABILITIES			
Current Liabilities:			
Accounts Payable	5,238,317	1,896,531	7,134,848
Accrued Payroll and Employee Benefits	1,239,115	108,800	1,347,915
Accrued Liabilities	1,233,842	166,513	1,400,355
Construction Contracts Payable	761,186	66,243	827,429
Sales Taxes Payable	1,038	357,331	358,369
Due to Other Governments	39	-	39
Deposits Held for Others	331,932	3,314,026	3,645,958
Unearned Revenues	3,665,125	217,729	3,882,854
Claims Payable	1,614,522	-	1,614,522
Compensated Absences	5,029,255	583,606	5,612,861
Capital Leases Payable	263,548	-	263,548
Bonds Payable	8,094,670	894,237	8,988,907
Total Current Liabilities	27,472,589	7,605,016	35,077,605
Noncurrent Liabilities:			
Claims Payable	937,718	-	937,718
Compensated Absences	1,257,314	145,902	1,403,216
Capital Leases Payable	3,824,369	-	3,824,369
Bonds Payable	58,092,199	7,982,795	66,074,994
Net Pension/OPEB Liabilities	60,641,081	7,412,389	68,053,470
Total Noncurrent Liabilities	124,752,681	15,541,086	140,293,767
Total Liabilities	152,225,270	23,146,102	175,371,372

See accompanying Notes to Basic Financial Statements.

	Primary Government		
	Governmental Activities	Business-Type Activities	Total
DEFERRED INFLOWS OF RESOURCES			
Deferred Inflows Related to Pensions/OPEB	\$ 3,196,258	\$ 513,701	\$ 3,709,959
NET POSITION			
Net Investment in Capital Assets	557,935,106	440,909,317	998,844,423
Restricted for:			
Transit Services	2,065,376	-	2,065,376
Highways and Streets	4,381,705	-	4,381,705
Grant and Contributor Purposes	2,999,023	-	2,999,023
Public Safety	12,215,758	-	12,215,758
Customer Deposits	-	5,000	5,000
Debt Service	8,776,898	990,670	9,767,568
Capital Projects	17,923,358	22,927,396	40,850,754
Unrestricted	40,943,280	83,178,540	124,121,820
Total Net Position	<u>\$ 647,240,504</u>	<u>\$ 548,010,923</u>	<u>\$ 1,195,251,427</u>

See accompanying Notes to Basic Financial Statements.

**CITY OF AVONDALE, ARIZONA
STATEMENT OF ACTIVITIES
YEAR ENDED JUNE 30, 2020**

Functions/Programs	Expenses	Program Revenues		
		Charges for Services	Operating Grants and Contributions	Capital Grants and Contributions
Primary Government:				
Governmental Activities:				
General Government	\$ 17,518,396	\$ 242,267	\$ 83,594	\$ 3,033
Public Safety	42,226,785	422,326	8,382,693	594,474
Highways and Streets	14,895,706	-	-	13,482,691
Health and Welfare	3,387,949	-	7,236,445	-
Economic and Community Development	8,066,194	5,107,216	-	-
Culture and Recreation	7,338,930	327,337	103,087	554,327
Transportation	1,212,967	-	218,360	-
Interest on Long-Term Debt	2,276,266	-	-	-
Total Governmental Activities	96,923,193	6,099,146	16,024,179	14,634,525
Business-Type Activities:				
Water	16,994,862	15,829,321	-	4,707,989
Wastewater	14,409,900	10,140,190	-	6,790,992
Sanitation	5,598,710	5,323,312	-	-
Total Business-Type Activities	37,003,472	31,292,823	-	11,498,981
Total Primary Government	\$ 133,926,665	\$ 37,391,969	\$ 16,024,179	\$ 26,133,506

GENERAL REVENUES

Taxes:

Sales and Use Taxes

Property Taxes, Levied for General Purposes

Property Taxes, Levied for Debt Service

Franchise Taxes

State-Shared Revenues, Unrestricted

Investment Income:

Interest Income

Net Change in the Fair Value of Investments

Gain (Loss) on Sale of Capital Assets

Miscellaneous

Transfers In (Out)

Total General Revenues and Transfers

CHANGE IN NET POSITION

Net Position - Beginning of year

NET POSITION - END OF YEAR

See accompanying Notes to Basic Financial Statements.

Net (Expense) Revenue and Changes in Net Position		
Primary Government		
Governmental Activities	Business-Type Activities	Total
\$ (17,189,502)	\$ -	\$ (17,189,502)
(32,827,292)	-	(32,827,292)
(1,413,015)	-	(1,413,015)
3,848,496	-	3,848,496
(2,958,978)	-	(2,958,978)
(6,354,179)	-	(6,354,179)
(994,607)	-	(994,607)
(2,276,266)	-	(2,276,266)
(60,165,343)	-	(60,165,343)
-	3,542,448	3,542,448
-	2,521,282	2,521,282
-	(275,398)	(275,398)
-	5,788,332	5,788,332
(60,165,343)	5,788,332	(54,377,011)
55,933,503	-	55,933,503
3,140,055	-	3,140,055
4,168,579	-	4,168,579
1,136,532	-	1,136,532
23,670,592	-	23,670,592
2,622,570	1,834,699	4,457,269
913,442	1,363,126	2,276,568
(27,200)	44,235	17,035
1,835,572	-	1,835,572
(300,000)	300,000	-
93,093,645	3,542,060	96,635,705
32,928,302	9,330,392	42,258,694
614,312,202	538,680,531	1,152,992,733
\$ 647,240,504	\$ 548,010,923	\$ 1,195,251,427

See accompanying Notes to Basic Financial Statements.



GOVERNMENTAL FUND FINANCIAL STATEMENTS

Major Funds

General Fund accounts for all financial resources of the City, except those required to be accounted for in other funds. This fund is the City's chief operating fund.

Dedicated Sales Tax Revenue Fund is a special revenue fund that accounts for the voter-approved 0.5-cent dedicated sales tax revenues. The use of these revenues is restricted to maintaining, improving, renovating, and constructing water and sewer systems and streets, and transportation projects and services that serve city neighborhoods.

Public Safety Sales Tax Revenue Fund is a special revenue fund that accounts for the voter-approved 0.5-cent public safety sales tax revenues. The use of these revenues is restricted to providing increased public safety services for city neighborhoods.

Development Fees Fund is a capital projects fund that accounts for fees collected from developers for growth-related development and construction based on the impact the development will have on city services and infrastructure, as well as bonds proceeds, sales tax and grant revenues, and fund transfers that are restricted, committed or assigned to capital development and maintenance.

Grants-in-Aid Fund is a special revenue fund that accounts for grant funding and private donations/contributions for specific purposes not accounted for in other special revenue funds or otherwise committed or restricted to capital projects.

Other Capital Projects Fund is a capital projects fund, accounts for revenues and expenditures relating to the acquisition of capital items.

Nonmajor Funds

All other governmental funds are nonmajor funds. These funds can be found on pages 103-119.

CITY OF AVONDALE, ARIZONA
BALANCE SHEET — GOVERNMENTAL FUNDS
JUNE 30, 2020

		Special Revenue Funds	
	General Fund	Dedicated Sales Tax Revenue Fund	Public Safety Sales Tax Revenue Fund
ASSETS			
Cash and Cash Equivalents	\$ 22,455,605	\$ 5,723,358	\$ 6,937,312
Investments	30,235,051	1,047,812	3,667,343
Receivables:			
Taxes	4,615,919	1,009,447	1,009,420
Accounts	202,348	572	1,444
Interest	112,571	-	15,783
Due from Other Funds	179,584	-	-
Due from Other Governments	826,300	6	6
Inventories	9,414	-	-
Prepaid Items	507,806	-	49,753
Restricted Cash with Fiscal Agents	2,694,579	-	-
Advances to Other Funds	128,000	-	-
Total Assets	<u>\$ 61,967,177</u>	<u>\$ 7,781,195</u>	<u>\$ 11,681,061</u>
LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND FUND BALANCE			
LIABILITIES			
Accounts Payable	\$ 1,206,011	\$ -	\$ 22,870
Accrued Payroll and Employee Benefits	1,002,471	-	34,971
Accrued Liabilities	-	-	-
Construction Contracts Payable	-	-	-
Deposits Held for Others	310,057	-	-
Sales Taxes Payable	1,038	-	-
Due to Other Governments	-	-	-
Due to Other Funds	-	-	-
Unearned Revenues	-	-	-
Advances from Other Funds	-	-	-
Total Liabilities	2,519,577	-	57,841
DEFERRED INFLOWS OF RESOURCES			
Unavailable Revenue - Property Taxes	60,603	-	-
Unavailable Revenue - Other	45,816	-	-
Total Deferred Inflows of Resources	<u>106,419</u>	<u>-</u>	<u>-</u>
FUND BALANCES			
Nonspendable	645,220	-	49,753
Restricted	248,072	7,781,195	11,573,467
Committed	21,752,584	-	-
Assigned	-	-	-
Unassigned	36,695,305	-	-
Total Fund Balances	<u>59,341,181</u>	<u>7,781,195</u>	<u>11,623,220</u>
Total Liabilities, Deferred Inflows of Resources, and Fund Balances	<u>\$ 61,967,177</u>	<u>\$ 7,781,195</u>	<u>\$ 11,681,061</u>

See accompanying notes to Basic Financial Statements.

Special Revenue Funds			Nonmajor	Total
Development Fees Fund	Grants In Aid Fund	Other Capital Projects Fund	Governmental Funds	Governmental Funds
\$ 12,626,025	\$ 5,245,704	\$ 19,823,453	\$ 14,858,989	\$ 87,670,446
-	-	-	7,655,795	42,606,001
-	-	-	169,335	6,804,121
107	142,875	4,983	132,862	485,191
-	-	-	29,263	157,617
-	-	-	-	179,584
-	450,201	-	865,585	2,142,098
-	-	-	19,971	29,385
-	509	-	715,180	1,273,248
1,864,946	-	10,080,720	8,589,468	23,229,713
-	-	-	-	128,000
<u>\$ 14,491,078</u>	<u>\$ 5,839,289</u>	<u>\$ 29,909,156</u>	<u>\$ 33,036,448</u>	<u>\$ 164,705,404</u>
\$ 1,210,086	\$ 30,162	\$ 2,277,951	\$ 380,779	\$ 5,127,859
-	132,219	-	49,502	1,219,163
-	-	-	1,233,842	1,233,842
52,738	887	707,561	-	761,186
-	21,875	-	-	331,932
-	-	-	-	1,038
-	39	-	-	39
-	12,523	-	167,061	179,584
440,000	3,225,125	-	-	3,665,125
128,000	-	-	-	128,000
1,830,824	3,422,830	2,985,512	1,831,184	12,647,768
-	-	-	120,554	181,157
-	197,736	-	7,242	250,794
<u>-</u>	<u>197,736</u>	<u>-</u>	<u>127,796</u>	<u>431,951</u>
-	509	-	735,151	1,430,633
6,693,452	2,218,214	18,252,579	16,654,744	63,421,723
-	-	-	112,410	21,864,994
5,966,802	-	8,671,065	13,575,163	28,213,030
-	-	-	-	36,695,305
<u>12,660,254</u>	<u>2,218,723</u>	<u>26,923,644</u>	<u>31,077,468</u>	<u>151,625,685</u>
<u>\$ 14,491,078</u>	<u>\$ 5,839,289</u>	<u>\$ 29,909,156</u>	<u>\$ 33,036,448</u>	<u>\$ 164,705,404</u>

See accompanying notes to Basic Financial Statements.



CITY OF AVONDALE, ARIZONA
RECONCILIATION OF THE BALANCE SHEET OF GOVERNMENTAL FUNDS TO
THE STATEMENT OF NET POSITION
JUNE 30, 2020

Total Fund Balances—Governmental Funds \$ 151,625,685

Amounts reported for governmental activities in the Statements of Net Position are different because:

Capital assets used in governmental activities are not financial resources and, therefore, are not reported in the funds.

Capital Assets, Net	\$ 895,361,418	
Accumulated Depreciation	<u>(284,938,359)</u>	610,423,059

Long-term liabilities, such as net pension/OPEB liabilities and bonds payable, are not due and payable in the current period and, therefore, are not reported as liabilities in the funds.

Compensated Absences	(6,179,560)	
Bonds Payable	(60,072,921)	
Capital Leases payable	(4,087,917)	
Net Pension/OPEB Liability	<u>(59,770,215)</u>	(130,110,613)

Equity in joint ventures are not financial resources and, therefore, are not reported in the funds.		591,371
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Some items related to the issuance of bonds are recognized at the time of issuance in the funds, but are amortized over the life of the debt in the government-wide statements.

Bond Discount/Premium, Net		(6,113,948)
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Deferred outflows and inflows of resources related to pensions/OPEB and deferred charges or credits on debt refundings are applicable to future reporting periods and, therefore, are not reported in the funds.

Deferred Charge on Debt Refunding	1,695,598	
Deferred Outflows Related to Pensions/OPEB	17,038,534	
Deferred Inflows Related to Pensions/OPEB	<u>(3,146,508)</u>	15,587,624

Internal service funds are used by management to charge the costs of certain activities, including risk management, printing services, and fleet management to individual funds. The assets and liabilities of the internal service funds are included in governmental activities on the Statement of Net Position.		4,805,375
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Some receivables are not available to pay for current-period expenditures and, therefore, are reported as unavailable revenue in the funds.

Intergovernmental	250,794	
Property Taxes	<u>181,157</u>	<u>431,951</u>

Net Position of Governmental Activities		<u><u>\$ 647,240,504</u></u>
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See accompanying notes to Basic Financial Statements.

CITY OF AVONDALE, ARIZONA
STATEMENT OF REVENUES, EXPENDITURES, AND CHANGES
IN FUND BALANCE — GOVERNMENTAL FUNDS
YEAR ENDED JUNE 30, 2020

		Special Revenue Funds	
	General Fund	Dedicated Sales Tax Revenue Fund	Public Safety Sales Tax Revenue Fund
Revenues			
Taxes	\$ 41,761,104	\$ 9,185,153	\$ 9,185,144
Licenses and Permits	2,829,160	-	-
Intergovernmental	23,950,676	-	-
Charges for Services	1,644,706	-	-
Fines, Forfeitures, and Penalties	1,094,797	-	-
Investment Income			
Interest Income	907,552	99,353	256,215
Net Decrease in Fair Value of Investments	772,038	-	-
Contributions	17,017	-	-
Miscellaneous	1,647,124	-	21
Total Revenues	<u>74,624,174</u>	<u>9,284,506</u>	<u>9,441,380</u>
EXPENDITURES			
Current:			
General Government	14,397,361	12,398	296,211
Public Safety	21,781,594	-	7,160,951
Highways and Streets	-	-	-
Health and Welfare	1,704,056	-	-
Economic and Community Development	5,251,857	-	-
Culture and Recreation	4,592,362	-	-
Transportation	-	-	-
Debt Service:			
Principal	121,275	-	-
Interest and Issuance Cost	70,405	-	-
Capital Outlay	3,199,186	-	134,793
Total Expenditures	<u>51,118,096</u>	<u>12,398</u>	<u>7,591,955</u>
EXCESS (DEFICIENCY) OF REVENUES OVER (UNDER) EXPENDITURES	23,506,078	9,272,108	1,849,425
OTHER FINANCING SOURCES (USES)			
Bonds Issued	-	-	-
Sale of Capital Assets	2,368	-	-
Transfers In	-	-	-
Transfers Out	(21,661,430)	(8,147,865)	-
Total Other Financing Sources (Uses)	<u>(21,659,062)</u>	<u>(8,147,865)</u>	<u>-</u>
NET CHANGE IN FUND BALANCES	1,847,016	1,124,243	1,849,425
Fund Balances - Beginning of Year	<u>57,494,165</u>	<u>6,656,952</u>	<u>9,773,795</u>
FUND BALANCES - END OF YEAR	<u>\$ 59,341,181</u>	<u>\$ 7,781,195</u>	<u>\$ 11,623,220</u>

See accompanying notes to Basic Financial Statements.

Special Revenue Funds			Nonmajor	Total
Development Fees Fund	Grants In Aid Fund	Other Capital Projects Fund	Governmental Funds	Governmental Funds
\$ -	\$ -	\$ -	\$ 4,168,579	\$ 64,299,980
2,427,084	-	-	284,923	5,541,167
-	8,242,251	-	7,394,819	39,587,746
-	-	-	56,684	1,701,390
-	-	-	-	1,094,797
254,658	15,809	316,341	570,078	2,420,006
-	-	-	141,404	913,442
124,922	261,681	-	17,096	420,716
343	116,248	55,490	16,346	1,835,572
<u>2,807,007</u>	<u>8,635,989</u>	<u>371,831</u>	<u>12,649,929</u>	<u>117,814,816</u>
-	15,696	-	622,973	15,344,639
-	6,958,387	-	1,172,502	37,073,434
2,147,183	-	-	1,683,953	3,831,136
-	744,107	-	748,357	3,196,520
-	523,334	-	1,869,337	7,644,528
-	107,362	-	-	4,699,724
-	-	-	1,111,568	1,111,568
-	-	-	7,588,923	7,710,198
-	-	95,400	2,473,392	2,639,197
13,408,927	439,390	13,262,178	1,230,464	31,674,938
<u>15,556,110</u>	<u>8,788,276</u>	<u>13,357,578</u>	<u>18,501,469</u>	<u>114,925,882</u>
(12,749,103)	(152,287)	(12,985,747)	(5,851,540)	2,888,934
-	-	10,096,000	-	10,096,000
-	-	-	133,400	135,768
24,750,000	166,910	18,775,003	12,954,410	56,646,323
(8,619,321)	(1,060)	(11,786,382)	(5,518,050)	(55,734,108)
<u>16,130,679</u>	<u>165,850</u>	<u>17,084,621</u>	<u>7,569,760</u>	<u>11,143,983</u>
3,381,576	13,563	4,098,874	1,718,220	14,032,917
<u>9,278,678</u>	<u>2,205,160</u>	<u>22,824,770</u>	<u>29,359,248</u>	<u>137,592,768</u>
<u>\$ 12,660,254</u>	<u>\$ 2,218,723</u>	<u>\$ 26,923,644</u>	<u>\$ 31,077,468</u>	<u>\$ 151,625,685</u>

See accompanying notes to Basic Financial Statements.

CITY OF AVONDALE, ARIZONA
RECONCILIATION OF THE STATEMENT OF REVENUES, EXPENDITURES, AND CHANGES
IN FUND BALANCE OF GOVERNMENTAL FUNDS TO THE STATEMENT OF ACTIVITIES
YEAR ENDED JUNE 30, 2020

Reconciliation to the Statement of Activities

Total net change in fund balances—governmental funds		\$ 14,032,917
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Amounts reported for governmental activities in the Statement of Activities are different because:

Governmental funds report capital outlays as expenditures. However, in the Statement of Activities, the cost of those assets is allocated over their estimated useful lives and reported as depreciation expense.

Expenditures for Capital Assets	\$ 31,946,323	
Depreciation Expense	<u>(18,385,614)</u>	13,560,709

The net effect of miscellaneous capital asset transactions (e.g., sales, contributions, transfers and disposals) not recorded in governmental funds.	12,044,473
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Changes in net pension/OPEB liabilities, deferred outflows of resources and deferred inflows of resources related to pensions and OPEB do not require the use of current financial resources, and therefore, are not reported in the governmental funds.

Change in Net Pension/OPEB Liabilities	(5,484,172)	
Change in Deferred Outflows of Resources Related to Pensions/OPEB	1,264,768	
Change in Deferred Inflows of Resources Related to Pensions/OPEB	<u>1,016,568</u>	(3,202,836)

The issuance of long-term debt (e.g., bonds, leases, notes) provides current financial resources to governmental funds, while the repayment of the principal of long-term debt consumes the current financial resources of governmental funds. Neither transaction, however, has any effect on net position. Also, governmental funds immediately report the effect of premiums, discounts and similar items when debt is first issued, whereas these amounts are deferred and amortized in the statement of activities. The net effect of these differences in the treatment of long-term debt and related items is listed below:

Compensated Absences	(394,348)	
Bond and Premium on Issuance	(10,096,000)	
Principal Paid on Long-Term Debt	7,710,198	
Amortization of Bond Discount/Premium	728,411	
Amortization of Deferred Charge on Debt Refunding	<u>(365,480)</u>	(2,417,219)

Internal service funds are used by management to charge the costs of certain activities to individual funds. The net revenue (expense) of internal service funds is reported with governmental activities in the Statement of Activities.	(1,049,908)
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Some revenues and expenses reported in the Statement of Activities do not provide or use current financial resources and, therefore, are not reported as revenues or expenditures in governmental funds.

Property Taxes	121,061	
Intergovernmental Revenue	(167,187)	
Change in Equity in Joint Ventures	<u>6,292</u>	<u>(39,834)</u>

Change in Net Position of Governmental Activities	<u>\$ 32,928,302</u>
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See accompanying notes to Basic Financial Statements.

CITY OF AVONDALE, ARIZONA
STATEMENT OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCE —
BUDGET AND ACTUAL —
GENERAL FUND
YEAR ENDED JUNE 30, 2020

	Budgeted Amounts		Actual	Variance with
	Original	Final	Amounts	Final Budget - Positive (Negative)
REVENUES				
Taxes	\$ 39,720,970	\$ 39,720,970	\$ 41,761,104	\$ 2,040,134
Licenses and Permits	1,766,000	1,766,000	2,829,160	1,063,160
Intergovernmental	23,926,620	23,926,620	23,950,676	24,056
Charges for Services	1,062,000	1,062,000	1,644,706	582,706
Fines, Forfeitures, and Penalties	958,000	958,000	1,094,797	136,797
Investment Income	520,000	520,000	1,679,590	1,159,590
Contributions	10,000	10,000	17,017	7,017
Miscellaneous	1,472,000	1,472,000	1,647,124	175,124
Total Revenues	69,435,590	69,435,590	74,624,174	5,188,584
EXPENDITURES				
Current:				
General Government	16,279,310	16,238,410	14,397,361	1,841,049
Public Safety	28,772,660	28,853,890	21,781,594	7,072,296
Health and Welfare	1,987,320	2,015,390	1,704,056	311,334
Economic and Community Development	7,879,430	8,016,670	5,251,857	2,764,813
Culture and Recreation	5,326,530	5,323,740	4,592,362	731,378
Debt Service:				
Principal	121,280	121,280	121,275	5
Interest and Other Charges	70,400	70,400	70,405	(5)
Capital Outlay	521,200	2,987,180	3,199,186	(212,006)
Total Expenditures	60,958,130	63,626,960	51,118,096	12,508,864
EXCESS (DEFICIENCY) OF REVENUES OVER (UNDER) EXPENDITURES	8,477,460	5,808,630	23,506,078	17,697,448
OTHER FINANCING SOURCES (USES)				
Sale of Capital Assets	4,000	4,000	2,368	(1,632)
Transfers Out	(21,661,430)	(21,661,430)	(21,661,430)	-
Total Other Financing Sources (Uses)	(21,657,430)	(21,657,430)	(21,659,062)	(1,632)
NET CHANGE IN FUND BALANCE	(13,179,970)	(15,848,800)	1,847,016	17,695,816
Fund Balance - Beginning of year	57,494,165	57,494,165	57,494,165	-
FUND BALANCE - END OF YEAR	<u>\$ 44,314,195</u>	<u>\$ 41,645,365</u>	<u>\$ 59,341,181</u>	<u>\$ 17,695,816</u>

See accompanying notes to Basic Financial Statements.

CITY OF AVONDALE, ARIZONA
STATEMENT OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCE —
BUDGET AND ACTUAL —
DEDICATED SALES TAX REVENUE FUND
YEAR ENDED JUNE 30, 2020

	Budgeted Amounts		Actual	Variance with
	Original	Final	Amounts	Final Budget - Positive (Negative)
REVENUES				
Taxes	\$ 8,522,000	\$ 8,522,000	\$ 9,185,153	\$ 663,153
Investment Income	-	-	99,353	99,353
Total Revenues	<u>8,522,000</u>	<u>8,522,000</u>	<u>9,284,506</u>	<u>762,506</u>
EXPENDITURES				
Current:				
General Government	<u>-</u>	<u>-</u>	<u>12,398</u>	<u>(12,398)</u>
EXCESS (DEFICIENCY) OF REVENUES OVER (UNDER) EXPENDITURES	8,522,000	8,522,000	9,272,108	750,108
OTHER FINANCING SOURCES (USES)				
Transfers Out	<u>(8,147,865)</u>	<u>(8,147,865)</u>	<u>(8,147,865)</u>	<u>-</u>
NET CHANGE IN FUND BALANCE	374,135	374,135	1,124,243	750,108
Fund Balance - Beginning of Year	<u>6,656,952</u>	<u>6,656,952</u>	<u>6,656,952</u>	<u>-</u>
FUND BALANCE - END OF YEAR	<u>\$ 7,031,087</u>	<u>\$ 7,031,087</u>	<u>\$ 7,781,195</u>	<u>\$ 750,108</u>

See accompanying notes to Basic Financial Statements.

CITY OF AVONDALE, ARIZONA
STATEMENT OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCE —
BUDGET AND ACTUAL —
PUBLIC SAFETY SALES TAX REVENUE FUND
YEAR ENDED JUNE 30, 2020

	Budgeted Amounts		Actual	Variance with
	Original	Final	Amounts	Final Budget - Positive (Negative)
REVENUES				
Taxes	\$ 8,522,000	\$ 8,522,000	\$ 9,185,144	\$ 663,144
Investment Income	80,000	80,000	256,215	176,215
Miscellaneous	-	-	21	21
Total Revenues	<u>8,602,000</u>	<u>8,602,000</u>	<u>9,441,380</u>	<u>839,380</u>
EXPENDITURE				
Current:				
General Government	324,320	324,320	296,211	28,109
Public Safety	7,720,830	7,719,230	7,160,951	558,279
Capital Outlay	138,500	144,850	134,793	10,057
Total Expenditures	<u>8,183,650</u>	<u>8,188,400</u>	<u>7,591,955</u>	<u>596,445</u>
EXCESS (DEFICIENCY) OF REVENUE OVER (UNDER) EXPENDITURES	418,350	413,600	1,849,425	1,435,825
Fund Balance - Beginning of Year	<u>9,773,795</u>	<u>9,773,795</u>	<u>9,773,795</u>	<u>-</u>
FUND BALANCE - END OF YEAR	<u>\$ 10,192,145</u>	<u>\$ 10,187,395</u>	<u>\$ 11,623,220</u>	<u>\$ 1,435,825</u>

See accompanying notes to Basic Financial Statements.

CITY OF AVONDALE, ARIZONA
STATEMENT OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCE —
BUDGET AND ACTUAL —
GRANTS-IN-AIDS FUND
YEAR ENDED JUNE 30, 2020

	Budgeted Amounts		Actual	Variance with
	Original	Final	Amounts	Final Budget - Positive (Negative)
REVENUES				
Intergovernmental	\$ 2,308,540	\$ 3,203,691	\$ 8,242,251	\$ 5,038,560
Investment Income	-	-	15,809	15,809
Contributions	93,130	189,986	261,681	71,695
Miscellaneous	20,000	116,233	116,248	15
Total Revenues	2,421,670	3,509,910	8,635,989	5,126,079
EXPENDITURES				
Current:				
General Government	94,505	94,422	15,696	78,726
Public Safety	7,060	6,976,079	6,958,387	17,692
Health and Welfare	718,640	1,156,749	744,107	412,642
Economic and Community Development	888,235	1,055,915	523,334	532,581
Culture and Recreation	17,500	170,462	107,362	63,100
Capital Outlay	99,725	457,403	439,390	18,013
Total Expenditures	1,731,160	9,816,608	8,788,276	1,122,754
EXCESS (DEFICIENCY) OF REVENUES OVER (UNDER) EXPENDITURES	690,510	(6,306,698)	(152,287)	6,154,411
OTHER FINANCING SOURCES (USES)				
Transfers In	166,910	99,230	166,910	67,680
Transfers Out	(1,060)	(1,060)	(1,060)	-
Total Other Financing Sources (Uses)	165,850	98,170	165,850	67,680
NET CHANGE IN FUND BALANCE	13,563	13,563	13,563	-
Fund Balance - Beginning of Year	2,205,160	2,205,160	2,205,160	-
FUND BALANCE - END OF YEAR	<u>\$ 2,218,723</u>	<u>\$ 2,218,723</u>	<u>\$ 2,218,723</u>	<u>\$ -</u>

PROPRIETARY FUND FINANCIAL STATEMENTS

Major Funds

Water Fund accounts for the operation, maintenance, and financing of the City's water services, which provide for the production, treatment, storage, and distribution of potable water supplies to city customers.

Wastewater Fund accounts for the operation, maintenance, and financing of the City's wastewater services, which ensure the effective operation of the wastewater collection system and the water reclamation facility in compliance with application regulations, with an emphasis on the production of reclaimed water for recharge and reuse.

Sanitation Fund accounts for the operation, maintenance, and financing of the City's solid waste and recycling services, which includes its solid waste collection, recycling and disposal system.

Internal Service Funds

These funds can be found on pages 121-123.

CITY OF AVONDALE, ARIZONA
STATEMENT OF NET POSITION — PROPRIETARY FUNDS
JUNE 30, 2020

	Business-type Activities—Enterprise Funds				Governmental Activities Internal Service Funds
	Water	Wastewater	Sanitation	Total	
ASSETS					
Current Assets:					
Cash and Cash Equivalents	\$ 14,526,032	\$ 18,359,218	\$ 5,101,694	\$ 37,986,944	\$ 5,406,950
Receivables:					
Accounts, Net	4,475,241	1,709,029	884,877	7,069,147	623
State and County Taxes	166,155	-	-	166,155	-
Interest	118,969	57,602	23,186	199,757	10,466
Inventories	613,113	216,788	61,488	891,389	216,317
Prepaid Items	668	335	-	1,003	3,182
Restricted Cash:					
Customer Deposits	3,309,026	-	5,000	3,314,026	-
Cash with Fiscal Agents	27,322	963,348	-	990,670	-
Total Current Assets	23,236,526	21,306,320	6,076,245	50,619,091	5,996,581
Noncurrent Assets:					
Water Storage Credits Inventory	16,185,434	-	-	16,185,434	-
Investments	31,926,021	14,187,003	7,058,632	53,171,656	3,267,363
Capital Assets:					
Nondepreciable	16,137,655	2,887,913	-	19,025,568	-
Depreciable, Net	213,190,476	215,164,420	2,466,152	430,821,048	194,217
Total Noncurrent Assets	277,439,586	232,239,336	9,524,784	519,203,706	3,461,580
Total Assets	300,676,112	253,545,656	15,601,029	569,822,797	9,458,161
DEFERRED OUTFLOWS OF RESOURCES					
Deferred Charge on Debt Refunding	-	5,976	-	5,976	-
Deferred Outflows Related to Pensions/OPEB	539,125	315,441	272,156	1,126,722	131,763
Total Deferred Outflows of Resources	539,125	321,417	272,156	1,132,698	131,763
LIABILITIES					
Current Liabilities:					
Accounts Payable	755,708	1,017,888	122,935	1,896,531	110,458
Accrued Payroll and Employee Benefits	41,825	43,651	23,324	108,800	19,952
Accrued Liabilities	9,616	156,897	-	166,513	-
Construction Contracts Payable	66,243	-	-	66,243	-
Sales Taxes Payable	354,630	2,701	-	357,331	-
Deposits Held in Custody for Others	3,309,026	-	5,000	3,314,026	-
Claims Payable	-	-	-	-	1,614,522
Unearned Revenues	217,729	-	-	217,729	-
Compensated Absences	268,280	170,870	144,456	583,606	85,607
Revenue Bonds	26,649	867,588	-	894,237	-
Total Current Liabilities	5,049,706	2,259,595	295,715	7,605,016	2,189,582
Noncurrent Liabilities:					
Claims Payable	-	-	-	-	937,718
Compensated Absences	67,070	42,718	36,114	145,902	21,402
Revenue Bonds	-	7,982,795	-	7,982,795	-
Net Pension/OPEB Liabilities	3,590,614	2,086,972	1,734,803	7,412,389	870,866
Total Noncurrent Liabilities	3,657,684	10,112,485	1,770,917	15,541,086	1,829,986
Total Liabilities	8,707,390	12,372,080	2,066,632	23,146,102	4,019,568
DEFERRED INFLOWS OF RESOURCES					
Deferred Inflows Related to Pensions and OPEB	272,593	126,111	114,997	513,701	49,750
NET POSITION					
Net Investment in Capital Assets	229,235,239	209,207,926	2,466,152	440,909,317	194,217
Restricted for:					
Debt Service	27,322	963,348	-	990,670	-
Capital Projects	12,742,106	9,691,948	493,342	22,927,396	-
Customer Deposits	-	-	5,000	5,000	-
Unrestricted	50,230,587	21,505,660	10,727,062	82,463,309	5,326,389
Total Net Position	\$ 292,235,254	\$ 241,368,882	\$ 13,691,556	547,295,692	\$ 5,520,606
Adjustment to report the cumulative internal balance for the net effect of the activity between the internal service funds and the enterprise funds over time				715,231	
Net Position of Business-Type Activities				<u>\$ 548,010,923</u>	

See accompanying notes to Basic Financial Statements.

CITY OF AVONDALE, ARIZONA
STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN FUND NET POSITION —
PROPRIETARY FUNDS
YEAR ENDED JUNE 30, 2020

	Business-type Activities - Enterprise Funds				Governmental Activities Internal Service Funds
	Water	Wastewater	Sanitation	Total	
OPERATING REVENUES					
Charges for Services	\$ 15,829,321	\$ 10,140,190	\$ 5,323,312	\$ 31,292,823	\$ 4,897,397
Miscellaneous	318,595	1,249	2,493	322,337	82,103
Total Operating Revenues	16,147,916	10,141,439	5,325,805	31,615,160	4,979,500
OPERATING EXPENSES					
Salaries, Wages and Benefits	3,307,549	2,046,284	1,855,973	7,209,806	1,018,416
Contractual Services, Materials and Supplies	5,707,442	2,444,572	2,957,335	11,109,349	1,869,048
Insurance Claims and Expenses	-	-	-	-	2,130,298
Depreciation and Amortization	7,975,680	9,720,368	743,479	18,439,527	43,889
Total Operating Expenses	16,990,671	14,211,224	5,556,787	36,758,682	5,061,651
OPERATING INCOME (LOSS)	(842,755)	(4,069,785)	(230,982)	(5,143,522)	(82,151)
NONOPERATING REVENUES (EXPENSES)					
Gain on Sale of Capital Assets	30,525	13,710	-	44,235	-
Investment Income					
Interest Income	1,059,973	499,809	274,917	1,834,699	118,846
Net Increase in Fair Value of Investments	816,907	365,149	181,070	1,363,126	83,718
Interest Expense	-	(202,896)	-	(202,896)	-
Total Nonoperating Revenues (Expenses)	1,907,405	675,772	455,987	3,039,164	202,564
INCOME (LOSS) BEFORE DEVELOPMENT FEES, CAPITAL CONTRIBUTIONS, AND TRANSFERS	1,064,650	(3,394,013)	225,005	(2,104,358)	120,413
Capital Contributions	3,124,906	4,624,858	-	7,749,764	-
Development Fees	1,583,083	1,843,797	-	3,426,880	-
Transfers In	1,419,527	4,773,977	-	6,193,504	5,714
Transfers Out	(4,623,977)	(1,269,527)	-	(5,893,504)	(1,217,929)
CHANGE IN NET POSITION	2,568,189	6,579,092	225,005	9,372,286	(1,091,802)
Net Position - Beginning of Year	289,667,065	234,789,790	13,466,551	537,923,406	6,612,408
NET POSITION - END OF YEAR	<u>\$ 292,235,254</u>	<u>\$ 241,368,882</u>	<u>\$ 13,691,556</u>		<u>\$ 5,520,606</u>
Adjustment for the net effect of the current year activity between the internal service funds and the enterprise funds				(41,894)	
Change in Net Position of Business-Type Activities				<u>\$ 9,330,392</u>	

See accompanying notes to Basic Financial Statements.

**CITY OF AVONDALE, ARIZONA
STATEMENT OF CASH FLOWS —
PROPRIETARY FUNDS
YEAR ENDED JUNE 30, 2020**

	Business-type Activities - Enterprise Funds				Governmental Activities
	Water	Wastewater	Sanitation	Total	Internal Service Funds
CASH FLOWS FROM OPERATING ACTIVITIES					
Receipts from Customers	\$ 15,687,557	\$ 10,325,977	\$ 5,382,399	\$ 31,395,933	\$ 4,906,942
Payments to Suppliers for Goods and Services	(7,985,966)	(1,848,066)	(3,091,226)	(12,925,258)	(3,218,744)
Payments to Employees for Services	(3,203,018)	(1,969,062)	(1,774,311)	(6,946,391)	(949,936)
Miscellaneous Receipts	318,595	1,249	2,493	322,337	82,103
Net Cash Provided (Used) by Operating Activities	4,817,168	6,510,098	519,355	11,846,621	820,365
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES					
Interfund (Payment) Borrowing	(1,328)	(398)	(68)	(1,794)	17
Transfers In	1,419,527	4,773,977	-	6,193,504	5,714
Transfers Out	(4,623,977)	(1,269,527)	-	(5,893,504)	(1,075,127)
Net Cash Provided (Used) for Noncapital Financing Activities	(3,205,778)	3,504,052	(68)	298,206	(1,069,396)
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES					
Acquisition and Construction of Capital Assets	(2,241,603)	(2,101,440)	(1,861,579)	(6,204,622)	(57,223)
Principal Payments on Capital Debt	(25,662)	(799,711)	-	(825,373)	-
Interest Payments on Capital Debt	(3,162)	(313,795)	-	(316,957)	-
Development Fees Received	1,578,574	1,843,797	-	3,422,371	-
Proceeds from Sale of Capital Assets	30,525	13,710	-	44,235	-
Net Cash Provided (Used) for Capital and Related Financing Activities	(661,328)	(1,357,439)	(1,861,579)	(3,880,346)	(57,223)
CASH FLOWS FROM INVESTING ACTIVITIES					
Purchase of Investments	(286,274)	(127,962)	(63,454)	(477,690)	(29,338)
Investment Income	1,069,122	503,899	276,945	1,849,966	119,783
Net Cash Provided (Used) by Investing Activities	782,848	375,937	213,491	1,372,276	90,445
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	1,732,910	9,032,648	(1,128,801)	9,636,757	(215,809)
Cash and Cash Equivalents - Beginning of Year	16,129,470	10,289,918	6,235,495	32,654,883	5,622,759
CASH AND CASH EQUIVALENTS - END OF YEAR	<u>\$ 17,862,380</u>	<u>\$ 19,322,566</u>	<u>\$ 5,106,694</u>	<u>\$ 42,291,640</u>	<u>\$ 5,406,950</u>
RECONCILIATION OF OPERATING INCOME (LOSS) TO NET CASH PROVIDED (USED) BY OPERATING ACTIVITIES					
Operating Income (Loss)	\$ (842,755)	\$ (4,069,785)	\$ (230,982)	\$ (5,143,522)	\$ (82,151)
Adjustments to Reconcile Operating Income (Loss) to Net Cash Provided (Used) by Operating Activities					
Depreciation	7,975,680	9,720,368	743,479	18,439,527	43,889
Change in Assets, Deferred Outflows of Resources, Liabilities, and Deferred Inflows of Resources:					
(Increase) Decrease in Assets:					
Accounts Receivable	(144,754)	185,787	59,087	100,120	9,545
Inventories	(2,090,369)	(33,478)	(42,367)	(2,166,214)	5,936
Prepaid Items	8,350	2,854	-	11,204	(3,083)
Deferred Outflows of Resources					
Related to Pensions and OPEB	66,321	32,876	32,940	132,137	18,497
Increase (Decrease) in Liabilities:					
Accounts Payable	(100,778)	638,261	(91,524)	445,959	22,960
Accrued Payroll and Employee Benefits	(58,393)	(17,584)	(17,480)	(93,457)	(6,034)
Accrued Liabilities	(2,583)	(13,672)	-	(16,255)	-
Sales Taxes Payable	(31,776)	2,541	-	(29,235)	-
Deposits Held in Custody for Others	(61,368)	-	-	(61,368)	-
Unearned Revenue	2,990	-	-	2,990	-
Compensated Absences	(14,365)	(4,408)	6,982	(11,791)	22,725
Claims Payable	-	-	-	-	754,789
Pension/OPEB Liability	271,380	162,232	144,825	578,437	80,681
Deferred Inflows of Resources					
Related to Pensions and OPEB	(160,412)	(95,894)	(85,605)	(341,911)	(47,389)
Net Cash Provided (Used) by Operating Activities	<u>\$ 4,817,168</u>	<u>\$ 6,510,098</u>	<u>\$ 519,355</u>	<u>\$ 11,846,621</u>	<u>\$ 820,365</u>

Continued

See accompanying notes to Basic Financial Statements.

CITY OF AVONDALE, ARIZONA
STATEMENT OF CASH FLOWS — (CONTINUED)
PROPRIETARY FUNDS
YEAR ENDED JUNE 30, 2020

	Business-type Activities - Enterprise Funds				Governmental Activities
	Water	Wastewater	Sanitation	Total	Internal Service Funds
<i>Continuation</i>					
RECONCILIATION OF CASH AND CASH EQUIVALENTS AT JUNE 30, 2020					
TO STATEMENT OF NET POSITION:					
Cash and Cash Equivalents	\$ 14,526,032	\$ 18,359,218	\$ 5,101,694	\$ 37,986,944	\$ 5,406,950
Restricted:					
Customer Deposits	3,309,026	-	5,000	3,314,026	-
Cash with Fiscal Agents	27,322	963,348	-	990,670	-
Total Cash and Cash Equivalents	<u>\$ 17,862,380</u>	<u>\$ 19,322,566</u>	<u>\$ 5,106,694</u>	<u>\$ 42,291,640</u>	<u>\$ 5,406,950</u>
NONCASH CAPITAL, FINANCING AND INVESTING ACTIVITIES					
Amortization of Bond Premiums, Discounts, and Deferred Charge on Refunding	\$ -	\$ 110,899	\$ -	\$ 110,899	\$ -
Capital Contributions	\$ 3,124,906	\$ 4,624,858	\$ -	\$ 7,749,764	\$ -
Change in Fair Value of Investments	\$ 816,907	\$ 365,149	\$ 181,070	\$ 1,363,126	\$ 83,718
Capital Asset Addition Paid by Accounts Payable	\$ 5,665	\$ -	\$ -	\$ 5,665	\$ -
Transfer of Capital Assets to Governmental Activities	\$ -	\$ -	\$ -	\$ -	\$ 142,802

See accompanying notes to Basic Financial Statements.



FIDUCIARY FUND FINANCIAL STATEMENTS

Volunteer Fire Fighters Relief and Pension Fund accounts for the City's single-employer defined contribution plan that provides pension benefits to volunteer fire fighters not covered under the Public Safety Personnel Retirement System.

**CITY OF AVONDALE, ARIZONA
STATEMENT OF FIDUCIARY NET POSITION —
VOLUNTEER FIRE FIGHTERS RELIEF AND PENSION FUND
YEAR ENDED JUNE 30, 2020**

	Volunteer Fire Fighters Relief and Pension Fund
ASSETS	
Cash and Cash Equivalents	<u>\$ 223,733</u>
NET POSITION	
Net Position Restricted for Pensions	<u><u>\$ 223,733</u></u>

See accompanying notes to Basic Financial Statements.

CITY OF AVONDALE, ARIZONA
STATEMENT OF CHANGES IN FIDUCIARY NET POSITION —
VOLUNTEER FIRE FIGHTERS RELIEF AND PENSION FUND
JUNE 30, 2020

	Volunteer Fire Fighters Relief and Pension Fund
ADDITIONS	
Investment Income	\$ 3,171
DEDUCTIONS	
Benefits Paid to Plan Members	<u>4,801</u>
CHANGE IN NET POSITION	(1,630)
Net Position - Beginning of Year	<u>225,363</u>
NET POSITION - END OF YEAR	<u><u>\$ 223,733</u></u>

See accompanying notes to Basic Financial Statements.



NOTES TO BASIC FINANCIAL STATEMENTS

The notes to the financial statements include a summary of significant accounting policies and other disclosures considered essential to the fair presentation of the accompanying financial statements.

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CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The City of Avondale, Arizona (the City) was incorporated in 1946 under the provisions of the Constitution of Arizona and Arizona Revised Statutes (A.R.S.). Avondale operates under the Council-Manager form of government in accordance with its Charter. Legislative authority is vested in a seven-member City Council consisting of a mayor and six councilmembers elected at large for a term of four years. The City Council appoints the City Manager and such other officers deemed necessary and proper for the orderly administration of the City's affairs. The City provides a full range of municipal services including police and fire protection, planning and development, parks and recreation, library, transportation, certain human services, and general administration. The City also owns and operates an enterprise whose activities include water, wastewater and sanitation services.

The accompanying financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America applicable to governmental units adopted by the *Governmental Accounting Standards Board* (GASB). The GASB is the accepted standard-setting body for establishing governmental accounting and financial reporting principles. The City's significant accounting policies are described below.

For the year ended June 30, 2020, the City implemented the provisions of GASB Statement No. 88, Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements. This statement improves the information that is disclosed in notes to governmental financial statements related to debt, including direct borrowings and direct placements, and clarifies which liabilities governments should include when disclosing information related to debt.

A. Reporting Entity

The accompanying financial statements present the activities of the City (the primary government) and its blended component units collectively referred to as "the financial reporting entity". The component unit referred to below has been included in the City's reporting entity because of the significance of its operational and financial relationship with the City. The City has no discretely presented component units.

City of Avondale Municipal Development Corporation (MDC) is a nonprofit corporation that is organized under the laws of the State of Arizona to assist the City with the financing, acquisition, and construction of municipal projects and facilities. The MDC is governed by a board of directors which is responsible for approving the MDC's bonds. The City Council appoints MDC board members and also approves MDC bond sales. Although it is legally separate from the City, the MDC is reported as if it is part of the primary government because its sole purpose is to finance the acquisition and construction of municipal projects and facilities for the City. The MDC does not issue separate financial statements, but it does file an annual report with the Arizona Corporation Commission. Copies of the report are available from the City's Finance and Budget Department.

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

A. Reporting Entity (Continued)

Alamar Community Facilities District was formed by petition to the City Council in 2018. Alamar's purpose is to acquire or construct public infrastructure in a specified area of the City. As a special purpose district and separate political subdivision under the Arizona Constitution, Alamar can levy taxes and issue bonds independently of the City. Property owned in the designated areas is assessed for Alamar's property taxes, and thus for the costs of operating the district. The Alamar Community Facilities District is governed by a board of directors that consists of the members of the Avondale City Council with two additional members who were designated by the Petitioners in the application. The City will have no liability for the district's debt once issued. Alamar is reported in a special revenue fund. For the year ended June 30, 2020, Alamar accounted for \$618 in cash and revenues. Such activities were not significant to the financial statements and were excluded from the financial statements. Alamar will be included in the June 30, 2021 financial statements.

Separately issued financial statements are not prepared for the blended component units.

B. Government-Wide and Fund Financial Statements

The basic financial statements include both government-wide and fund financial statements. The government-wide financial statements focus on the City as a whole, while the fund financial statements focus on major funds. Each presentation provides valuable information that can be analyzed and compared between years and between governments to enhance the information's usefulness.

Government-Wide Financial Statements: The government-wide financial statements (the Statement of Net Position and the Statement of Activities), which exclude fiduciary funds, provide information about the City as a whole. Governmental activities, which normally are supported by taxes and intergovernmental revenues, are reported separately from business-type activities, which rely to a significant extent on fees and charges for services. The government-wide focus emphasizes the sustainability of the City and aggregate change in financial position resulting from the activities of the fiscal period.

The Statement of Net Position presents all financial and capital resources of the City. It is presented in a format that displays assets plus deferred outflows of resources, less liabilities and deferred inflows of resources, equals net position, with assets and liabilities presented in order of their relative liquidity. Net position is presented in three components—net investment in capital assets, restricted (distinguishing between major categories of restrictions), and unrestricted. Net investment in capital assets consists of capital assets, net of accumulated depreciation and amortization, reduced by outstanding balances of bonds, capital leases, notes or other borrowings that are attributable to the acquisition, construction, or improvement of those assets. Deferred outflows of resources and deferred inflows of resources related to the acquisition, construction, or improvement of those assets or related debt also are included in net investment in capital assets. Restricted net position consists of restricted assets with

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

B. Government-Wide and Fund Financial Statements (Continued)

constraints placed on their use externally either by creditors (such as bond covenants), grantors, contributors, laws and regulations of other governments, or imposed by law.

through constitutional provisions or enabling legislation, reduced by liabilities and deferred inflows of resources related to those assets. Unrestricted net position equals that portion of assets plus deferred outflows of resources, less liabilities and deferred inflows of resources, which are not otherwise classified as part of net investment in capital assets or restricted net position.

The Statement of Activities presents a comparison between direct expenses and program revenues for each function of the City's governmental activities and segment of its business-type activities. Direct expenses are those that are specifically associated with a program or function and, therefore, are clearly identifiable to a particular function. Interest on long-term debt is not allocated to various functions in the governmental activities so it is reported separately. Program revenues include 1) charges to customers or users who purchase, use or directly benefit from the goods, services or privileges provided by a particular function or segment, and 2) grants and contributions that are restricted to meeting the operational or capital requirements of a particular function or segment. Revenues that are not classified as program revenues, including internally dedicated resources and all taxes the City levies or imposes, are reported as general revenues. General revenues support the net costs of the functions and segments not covered by program revenues.

Generally, the effect of interfund activity has been eliminated from the government-wide financial statements to minimize the double-counting of internal activities. Net interfund activity and balances between governmental activities and business-type activities are presented in the government-wide financial statements. Certain charges for interfund services provided and used, such as charges between the Enterprise Fund utility segments and various functional activities, were not eliminated if the charges approximated their exchange values. The General Fund charges administrative service fees to other operating funds to support general services (e.g., purchasing, accounting and administration) used by the other operating funds. These administrative fees were not eliminated from the government-wide or fund financial statements.

Fund Financial Statements: The fund financial statements provide information about the City's funds, including fiduciary funds and blended component units. Separate statements are presented for the governmental, proprietary, and fiduciary fund categories. The emphasis on fund financial statements is on major governmental and enterprise funds, each displayed in a separate column. All nonmajor governmental funds, as well as the internal service funds, are summarized into a single column on the fund financial statements and detailed in combining statements included as supplementary information after the basic financial statements. Fiduciary funds are aggregated and reported by fund type.

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

C. Measurement Focus, Basis of Accounting, and Financial Statement Presentation

Government-Wide Financial Statements: The government-wide financial statements are presented using the economic resources measurement focus and the accrual basis of accounting. Revenues are recorded when earned, and expenses are recorded when liabilities are incurred, regardless of when the related cash flows occur. Property taxes are recognized as revenue in the year for which they are levied. Grants and similar items are recognized as revenue as soon as all eligibility requirements the provider imposed have been met.

Governmental Fund Financial Statements: The governmental fund financial statements are presented using the current financial resources measurement focus and the modified accrual basis of accounting. Under this method, revenues are recognized when they become both measurable and available to finance the City's operations. The City considers all revenues reported in the governmental funds to be available if the revenues are collected within 60 days after year-end. The City's principal revenue sources that are susceptible to accrual are sales taxes, property taxes, intergovernmental, and investment income.

City sales taxes collected and held by merchants at year-end on behalf of the City are recognized as revenue. State-shared revenues, including sales and income taxes, highway user and auto lieu taxes, and lottery distributions for transportation assistance, which are collected and held by the State at year-end on behalf of the City, are also recognized as revenue. Licenses and permits, charges for services, fines, forfeitures and penalties, contributions, and miscellaneous revenues are recorded as revenue when received because they are generally not available until actually received. Changes in the fair value of investments are recognized as part of revenue at year-end.

In applying the susceptible to accrual concept to intergovernmental revenues and receivables, revenues are recognized when all the applicable eligibility requirements, including time requirements, have been met. Resources received before all eligibility requirements are met are reported as deferred inflows of resources. Revenue for reimbursement grants is recognized as revenue when qualifying expenditures have been incurred and all other grant requirements have been met, provided that the available criterion is met.

Expenditures are recorded when the related fund liability is incurred except for principal and interest on long-term debt, claims and judgments, and compensated absences, which are recognized as expenditures to the extent they are due and payable. General capital asset acquisitions are reported as expenditures in governmental funds. Long-term debt issuances and proceeds and acquisitions under capital lease agreements are reported as other financing sources.

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

C. Measurement Focus, Basis of Accounting, and Financial Statement Presentation (Continued)

The governmental fund financial statements are presented on a different measurement focus and basis of accounting than the government-wide financial statements. Therefore, a reconciliation is presented on the page following each governmental fund financial statement that briefly explains the adjustments necessary to transform the governmental fund financial statements into the governmental activities column of the government-wide financial statements.

Proprietary Fund Financial Statements: The financial statements of the proprietary funds are reported using the economic resources measurement focus and accrual basis of accounting, similar to the government-wide financial statements described above.

Proprietary fund revenues and expenses are classified as either operating or nonoperating. Operating revenues and expenses generally result from transactions associated with the fund's principal activity. Accordingly, revenues, such as user charges, in which each party receives and gives up essentially equal values are operating revenues. Other revenues that result from transactions in which the parties do not exchange equal values are considered nonoperating revenues, along with investment earnings and revenues generated from ancillary activities. Operating expenses include the cost of services, administrative expenses, and depreciation on capital assets. Other expenses, such as interest expense, are considered nonoperating expenses.

The internal service funds, which provide services to the other funds of the City, are presented in a single combined column in the proprietary fund financial statements. Because the principal users of the internal service funds are the City's governmental activities, the assets and deferred outflows of resources and liabilities and deferred inflows of resources of the internal service funds are consolidated into the governmental column of the government-wide Statement of Net Position. The costs of the internal service funds services are spread to the appropriate function or segment on the governmental and business-type activities columns of government-wide Statement of Activities, and the revenues and expenses within the internal service funds are eliminated from the government-wide financial statements to avoid any doubling-up effect of these revenues and expenses.

Fiduciary Fund Financial Statements: The City's fiduciary fund, a pension trust fund, is presented in the fund financial statements. The fund accounts for resources that are required to be held in trust for members of the City's Volunteer Fire Fighters Relief and Pension Fund. The City excludes this fund from the government-wide financial statements because pension trust assets are not available to support city programs. The fiduciary financial statements reporting focus is on net position and changes in net position and employ accounting principles similar to proprietary funds.

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

D. Fund Accounting

The financial transactions of the City are recorded in individual funds. Each fund is accounted for by providing a separate set of self-balancing accounts that comprise its assets, deferred outflows of resources, liabilities, deferred inflows of resources, fund balance/net position, revenues, and expenditures/expenses. The various funds are reported by generic classification within the fund financial statements. GASB Statement No. 34 sets forth minimum criteria for the determination of major funds. The City has elected to present some additional governmental funds as major funds because of community focus. The nonmajor funds are combined in a column in the fund financial statements and detailed in the combining fund financial section.

The City reports the following major governmental funds:

The *General Fund* is the City's primary operating fund. It accounts for all financial resources of the general government, except those required to be accounted for in another fund.

The *Dedicated Sales Tax Revenue Fund*, a special revenue fund, accounts for the voter-approved 0.5-cent dedicated sales tax revenues. The use of these revenues is restricted to maintaining, improving, renovating, and constructing water and sewer systems, streets, and transportation projects and services that serve city neighborhoods. The tax was approved by the voters and became effective in July 2001. In September 2008, voters approved the expanded use of tax revenue to include transportation projects and services.

The *Public Safety Sales Tax Revenue Fund*, a special revenue fund, accounts for the voter-approved 0.5-cent public safety sales tax revenues. The use of these revenues is restricted to providing increased public safety services for city neighborhoods. The tax was approved by the voters and became effective in January 2004.

The *Development Fees Fund*, a capital projects fund, accounts for developer fees collected to finance growth-related development and construction, bond proceeds, sales tax and grant revenues, and fund transfers that are restricted, committed, or assigned to capital development and maintenance.

The *Grants-in-Aid Fund*, a special revenue fund, accounts for grant funding and private donations/contributions for specific purposes not accounted for in other special revenue funds or otherwise committed or restricted to capital projects.

The *Other Capital Projects Fund*, a capital projects fund, accounts for revenues and expenditures relating to the acquisition of capital items.

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

D. Fund Accounting (Continued)

The City reports the following major proprietary funds:

The *Water Fund* accounts for the operation, maintenance, and financing of the City's water system, which provides for the production, treatment, storage, and distribution of potable water supplies to city customers.

The *Wastewater Fund* accounts for the operation, maintenance, and financing of the City's wastewater system, which ensures the effective operation of the wastewater collection system and the water reclamation facility in compliance with applicable laws and regulations.

The *Sanitation Fund* accounts for the operation, maintenance, and financing of the City's sanitation system, which provides solid waste collection, recycling, and disposal services to city customers.

Additionally, the City reports the following fund types:

The internal service funds account for the operations that provide services to other city departments on a cost-reimbursement basis. The services include self-insurance, printing services, and fleet management.

The Volunteer Fire Fighters Relief and Pension Fund accounts for pension benefits of volunteer fire fighters not covered under the Public Safety Personnel Retirement System.

E. Budgets and Budgetary Accounting

On June 3, 1980, Arizona voters approved a constitutional amendment prescribing an expenditure limitation for all local governments. This constitutional amendment was enacted to control expenditures and limit future increases in spending adjustments for inflation and population growth. This limitation restricts the growth of expenditures to a percentage determined by population and inflation, with certain expenditures excluded from the limitation. Prior to April 1st of each year, the State Economic Estimates Commission determines and publishes the expenditure limitation for the following fiscal year for each governmental unit. Fiscal year 1979-80 is the base year for calculations.

The constitutional amendment includes provisions that require voter approval to establish an alternative expenditure limitation for cities and towns. The alternative expenditure limitation is valid for a period of two to seven years. On August 30, 2016, city voters approved an alternative expenditures limitation (Home Rule Option), the effect of which, allows total budgeted expenditures of the City's adopted budget to become the expenditure limitation for that year on a total budget basis. City voters have approved the Home Rule Option every four years since 1981. This alternative expenditure limitation is effective until June 30, 2021.

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

E. Budgets and Budgetary Accounting (Continued)

The following provides a brief budgetary overview of the City.

1. The City's fiscal year is established by state law and runs from July 1st through June 30th of each year.
2. Prior to June 1, the City Manager submits to the City Council a proposed operating budget for the fiscal year commencing the following July 1. The operating budget includes proposed expenditures and the means of financing them. Public hearings are conducted by the City to obtain citizen comments.
3. On or before the first Monday in August, the City Council legally adopts the budget and allocates spending authority to City funds through passage of an ordinance for the ensuing year. Budgets for all funds are adopted in accordance with the requirements of the Arizona Constitution, Arizona Revised Statutes, and City Charter. These appropriations lapse at the end of the fiscal year.
4. The City Manager is authorized to transfer any unencumbered appropriations balance, or portion thereof, between general classifications of expenditures within a department or fund or between departments within the same function. At the request of the City Manager, the City Council may at any time transfer any unencumbered appropriation balance, or portion thereof, between general classifications of expenditures from one department or fund to another.
5. The legal level of expenditure control is at the function level for the General Fund and at the fund level for all other funds. During the year ended June 30, 2020, the original budget was amended in a legally permissible manner. Budget and actual comparisons are provided in this report for each of the governmental funds.

F. Cash and Investments

For the statement of cash flows, the City's cash and cash equivalents are considered to be cash on hand, demand deposits, restricted cash with fiscal agents, investments in the State Treasurer's Local Government Investment Pool, and only those highly liquid investments with a maturity of 3 months or less when purchased.

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

F. Cash and Investments (Continued)

Investment income includes interest and dividend earnings and changes in fair value of applicable investments during the fiscal year. The City maintains pooled cash and investments, except for certain nonpooled investments held by the General Fund, Dedicated Sales Tax Revenue Fund, Public Safety Sales Tax Revenue Fund, Water Fund, Highway User Revenue Fund, Vehicle Replacement Fund, Water Fund, Wastewater Fund, Sanitation Fund, and Self-Insurance Fund. All pooled investments are considered cash equivalents. Interest income from pooled cash and investments is allocated to the individual funds based on the fund's month-end cash balance in relation to the total pooled investments. Each fund's equity in the pooled cash and investments is tracked on an ongoing basis. In the event that a certain fund overdraws its share of pooled cash, the overdraft is reported as a due to the General Fund at year-end. Investment income from nonpooled investments, which includes changes in fair value of investments during the fiscal year, is recorded based on the specific investments held by the fund. Investments are stated at fair value.

G. Restricted Assets

The City has executed trust indentures for all bond series issued that require all cash and investments of each bond series to be held on deposit by fiscal agents. These assets are restricted to retirement of principal balances, payment of interest, trustee fees associated with the bond issues, and to finance various capital projects. Accordingly, these assets are classified as restricted on the Balance Sheet and Statement of Net Position

H. Inventories

Supplies inventories are accounted for in the governmental fund and government-wide financial statements using the consumption method. These inventories consist of items that are held for sale in the ordinary course of operations. Amounts on hand at year-end are shown as assets on the Balance Sheet and Statement of Net Position. In the governmental fund financial statements, inventories are shown as nonspendable fund balance to indicate that they do not constitute "available spendable resources".

Water Fund inventories include long-term storage water credits credited to the City's long-term storage account by the Arizona Department of Water Resources. Effluent water credits are stated at cost based on the City's cost of treating the wastewater and recharging the resulting effluent water into the Phoenix Active Management Area. All other water credits are valued using the applicable Central Arizona Project water rate in effect at the time the water credit was credited to the City's long-term storage account.

Inventories are valued using the first-in, first-out inventory flow assumption.

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

I. Prepaid Items

Certain payments to vendors reflect costs applicable to future accounting periods and are recorded as prepaid items in both the governmental fund and government-wide financial statements. Prepaid items are recorded as expenditures/expenses when consumed. In the governmental fund financial statements, prepaid items are shown as nonspendable fund balance to indicate that they do not constitute "available spendable resources".

J. Receivables and Payables

Activity between funds that are representative of lending/borrowing arrangements outstanding at fiscal year-end are reported as either "due to/from other funds" (i.e., the current portion of interfund loans) or "advances to/from other funds" (i.e., the noncurrent portion of interfund loans). All trade and other receivables are reported net of an allowance for uncollectible amounts.

K. Capital Assets

Capital assets, including public domain infrastructure assets such as roads, bridges, curbs and gutters, streets and sidewalks, water and sewer systems, lighting systems, and other assets that are immovable and of value only to the City, and intangible assets such as water rights, which lack physical substance, are defined as assets with an initial, individual cost of \$5,000 or more and an estimated useful life more than one year. The City values these assets at cost or estimated historical cost if purchased or constructed; acquisition value for donated capital assets, donated works of art or similar items, and capital assets received in a service concession arrangement; and estimated fair market value at the grant or allotment date for water rights. The City's water rights have indefinite useful lives and, therefore, the City does not amortize these intangible assets. Capital assets are reported in the applicable governmental or business-types activities column of the government-wide financial statements and the proprietary fund financial statements. No capital assets, depreciation, or amortization are presented in the governmental fund financial statements.

The cost of normal maintenance and repairs that do not significantly extend the useful lives of assets or increase their capacity are not capitalized. Major improvements are capitalized and depreciated over the remaining useful life of the improved capital assets. Major outlays for capital assets and improvements are capitalized as projects are constructed.

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

K. Capital Assets (Continued)

The City has chosen not to apply the modified approach to any infrastructure networks, systems, or subsystems. Capital assets are depreciated or amortized over their estimated useful lives using the straight-line method. The estimated useful lives follow:

	<u>Years</u>
Intangible Assets	30 to 40
Buildings and Improvements	40
Improvements Other than Buildings	20
Water, Sewer, and Storm Drain	
Systems Improvements	50
Street Systems	20 to 40
Park Facilities and Streetscape	20
Artwork	20
Furniture	7
Machinery and Equipment	3 to 15

L. Deferred Outflows and Inflows of Resources

The Statement of Net Position and Balance Sheet include separate sections for deferred outflows of resources and deferred inflows of resources. Deferred outflows of resources represent a consumption of net position that applies to future periods that will be recognized as an expense in future periods (ie deferred charges on the refunding and deferred outflows related to pensions and other postemployment benefits). Deferred inflows of resources represent the acquisition of net position that applies to future periods that will be recognized as revenue and amortized in future periods (deferred inflows on pensions and other postemployment benefits).

Deferred inflows in the governmental funds represent revenues received more than 60 days after fiscal year end. These revenues will be recognized in the governmental fund financial statements in the next fiscal year, when available, and represent a reconciling item between the governmental fund financial statements and the governmental activities in the government-wide financial statements.

M. Compensated Absences

Compensated absences payable consist of vacation leave and a calculated amount of sick leave employees earned based on services already rendered. Vacation benefits vest with the employees when it is earned. The amount of sick leave benefits that vest with employees depends on the employees' number of years of continuous service and accumulated sick leave hours upon terminating employment. Regular full-time employees may accumulate up to 280 hours of vacation and Fire Battalion Chiefs assigned to a 24-hour shift schedule may accumulate up to 392 hours of vacation on a calendar year basis. Employees forfeit vacation hours in excess of these limits if not used by December 31st of each calendar year. All regular full-time employees may accumulate an unlimited number of sick leave hours.

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

M. Compensated Absences (Continued)

Upon resignation, the City compensates employees for 33.3% of their accumulated sick leave at the employees' current hourly rate. Upon retirement, the City compensates employees as follows:

- Employees with 10 years of continuous service with the City will receive 100% of accrued sick leave up to 250 hours at the employees' current hourly rate, or 33.3% of the total balance of accrued sick leave, whichever is greater.
- Employees with 15 years of continuous service with the City will receive 100% of accrued sick leave up to 375 hours at the employees' current hourly rate, or 33.3% of the total balance of accrued sick leave, whichever is greater.
- Employees with 20 years of continuous service with the City will receive 100% of accrued sick leave up to 500 hours at the employees' current hourly rate, or 33.3% of the total balance of accrued sick leave, whichever is greater.

Compensated absences payable is accrued as a liability in the government-wide and proprietary fund financial statements. Liabilities for these amounts are reported in the governmental fund financial statements only as they become due (e.g., as a result of employee resignations and retirements by fiscal year-end).

N. Long-Term Obligations

In the fund financial statements, governmental fund types recognize bond issuance proceeds, bond discounts and premiums, and bond issuance costs during the current period. The face amount of the debt issued is reported as other financing sources. Discounts on debt issuances are reported as other financing uses, while premiums received on debt issuances are reported as other financing sources. Bond issuance costs, whether or not withheld from the actual debt proceeds received, are reported as debt service expenditures.

In the government-wide and proprietary fund financial statements, long-term debt and other obligations are reported as liabilities on the Statement of Net Position. Bond discounts and premiums and deferred charges or credits on debt refunding are amortized over the life of the bonds using the straight-line method.

O. Pension and Other Postemployment Benefits

For purposes of measuring the net pension and other postemployment benefits (OPEB) assets and liabilities, deferred outflows of resources and deferred inflows of resources related to pensions and OPEB, and pension and OPEB expense, information about the plans' fiduciary net position and additions to/deductions from the plans' fiduciary net position have been determined on the same basis as they are reported by the plan. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

P. Transactions Between Funds

Transactions that would be treated as revenue or expenditures/expenses if they involved organizations external to the governmental unit are accounted for as revenue or expenditures/expenses in the funds involved. Transactions which constitute reimbursements of a fund for expenditures/expenses initially made from that fund that are properly applicable to another fund are recorded as expenditures/expenses in the reimbursing fund and as reductions of the expenditures/expense in the fund that is reimbursed.

Cash flows from one fund to another without a requirement for repayment are reported as interfund transfers. Interfund transfers between governmental activities and business-type activities are eliminated in the Statement of Activities. Interfund transfers in the fund financial statements are reported as "other financing sources (uses)" in governmental funds and after nonoperating revenues and expenses in proprietary funds.

Q. Fund Balance Classifications

The governmental funds' fund balances are reported within classifications based on a hierarchy of constraints placed on the use of those resources. The classifications are based on the relative strength of the constraints that control how the specific amounts can be spent. The classifications are nonspendable, restricted, committed, assigned, and unassigned fund balance classifications.

Nonspendable fund balances include amounts that cannot be spent because they are either not in spendable form, such as inventories, or are legally or contractually required to be maintained intact.

Restricted fund balances are those that have externally imposed restrictions on their usage by creditors (such as through debt covenants), grantors, contributors, or laws and regulations.

Committed fund balances are self-imposed limitations that the City Council approved, which is the highest level of decision-making authority within the City. Only the City Council can remove or change the constraints placed on the committed fund balances. Commitments must be made prior to fiscal year-end to be reported as a commitment. Committed fund balances also include resources that have been specifically committed to satisfy contractual requirements.

Assigned fund balances are spendable resources constrained by the City's intent to be used for specific purposes, but that are neither restricted nor committed.

Unassigned fund balance is the residual classification for the General Fund and includes all spendable resources not reported in other classifications. Also, deficits in fund balances of other governmental funds are reported as unassigned.

**CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020**

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Q. Fund Balance Classifications (Continued)

On June 15, 2020, the City Council approved a resolution adopting a formal City fund balance policy and stabilization arrangement. The significant components of the policy and arrangement follow:

The City Council delegated authority to the Finance and Budget Director to assign fund balances for specific purposes. Any fund balance assignments must be reported to the City Manager in writing and such assignments will be identified and incorporated in the City's annual budget planning process.

The City Council established a two-tier fiscal stabilization arrangement as committed fund balance in the General Fund of no less than 35% of budgeted General Fund expenditures from the prior fiscal year to provide a comfortable margin of safety to address potential natural disasters, unexpected economic events, revenue shortfalls, or other budget contingencies. The two tiers include an emergency reserve of 25% and a rainy day reserve of 10%.

The first-tier commitment consists of a 25% Emergency Reserve that may only be used for the following reasons:

- Mitigate damage and expenditures caused by natural disasters or declared public emergency for which no reasonable budget adjustments are available to continue or restore essential services.
- Address emergency events that jeopardize the public safety.
- Provide and maintain essential services to the public during natural disasters or emergency events.

The second-tier commitment consists of a 10% Rainy-Day Reserve that may only be used under the following circumstances:

The stabilization reserves shall be used only if:

- The City experiences sudden and/or unexpected declines in ongoing revenues (taxes or shared revenues) or charges for service that is greater than 10% of General Fund operating revenues from the prior year.
- The City experiences sudden and/or unexpected declines in state-shared revenues that is greater than 10% of General Fund operating expenditures from the prior year.
- Provide and maintain essential services to the public during natural disasters or emergency events.

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Q. Fund Balance Classifications (Continued)

Once the City Manager, or his/her designee, has determined that it is necessary to spend down stabilization reserves, the City Manager shall provide written communication to the Council explaining the nature of the event/occurrence necessitating their use for Council approval. If the reserves are reduced below the minimum required levels, the City staff shall develop a plan for Council approval to restore the reserves to, the appropriate balances. The City shall replenish the emergency and rainy-day reserves within two (2) fiscal years and five (5) fiscal years following the fiscal year of the event, respectively. If the depletion occurs during an ongoing economic downturn, the City shall restore the funds within two (2) years of revenue stabilization, as applicable. The progress of replenishment shall be reported in the City's Annual Budget.

R. Resource Flow Assumptions

When an expenditure/expense is incurred that can be paid from either restricted or unrestricted fund balances/net position, the City will generally use restricted fund balances/net position first. When disbursing unrestricted fund balances, the City will use committed amounts first, followed by assigned amounts, and lastly unassigned amounts.

S. Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions. These estimates and assumptions affect the reported amount of assets and liabilities, deferred outflows and inflows of resources, disclosure of contingent assets and liabilities at the date of the financial statements, and reported amounts of revenues and expenditures/expenses during the reporting period. Actual results may differ from these estimates.

NOTE 2 STEWARDSHIP, COMPLIANCE AND ACCOUNTABILITY

Deficit fund balances — At June 30, 2020, the Fleet management fund shows a deficit of \$783,167. The deficit was mainly due to the Net Pension and Other Postemployment Liability of \$661,246. Fleet management has made incremental changes to the markup on parts and labor rates to begin fully recovering the cost of providing fleet management services to city departments. City management plans to eliminate the remaining net position deficit by recovering prior years' cumulative fleet management undercharges from user departments.

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 3 CASH AND INVESTMENTS

A.R.S. authorize the City to invest public monies in the State Treasurer's Local Government Investment Pool, the County Treasurer's Investment Pool; obligations issued or guaranteed by the United States or any of the senior debt of its agencies, sponsored agencies, corporations, sponsored corporations, or instrumentalities; specified state and local government bonds, notes, and other evidences of indebtedness; and interest-earning investments such as savings accounts, certificates of deposit, and repurchase agreements in eligible depositories.

Total City cash and investments as of June 30, 2020, are reported as follows:

Governmental Activities	\$ 162,180,473
Business-Type Activities	95,463,296
Fiduciary Fund	223,733
Total	<u>\$ 257,867,502</u>
Cash on Hand	\$ 3,750
Cash in Banks	54,958,069
Investments	178,685,300
Cash with Fiscal Agents	24,220,383
Total	<u>\$ 257,867,502</u>

Fair Value Measurement and Application for Investments

The City's investments at June 30, 2020, categorized within the fair value hierarchy established by accounting principles generally accepted in the United States of America, were as follows:

		Fair Value Measurement Using	
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)
Investments by Fair Value Level	Amount		
U.S. Agency Mortgage Backed Securities	\$ 32,677,897	\$ -	\$ 32,677,897
Supranational Agency Bond	1,005,882	-	1,005,882
U.S. Treasury Securities	65,361,241	65,361,241	-
Total Investments by Fair Value Level	<u>99,045,020</u>	<u>\$ 65,361,241</u>	<u>\$ 33,683,779</u>
External Investment Pools Measured at Fair Value			
State Treasurer's Investment Pool 5	25,481,478		
State Treasurer's Investment Pool 7	54,158,802		
Total Investments	<u>\$ 178,685,300</u>		

Investments categorized as Level 1 are valued using prices quoted in active markets for those investments. Investments categorized as Level 2 are valued using institutional bond quotes and evaluations based on various market and industry inputs. Investments in the State Treasurer's Investment Pool 7 are valued at the pool's share price multiplied by the number of shares the City held. The fair value of a participant's position in the pool approximates the value of that participant's pool shares. The State Board of Investment provides oversight for the State Treasurer's Investment Pool 7.

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 3 CASH AND INVESTMENTS (CONTINUED)

Fair Value Measurement and Application for Investments (Continued)

During the year, the fair value of nonpooled investments decreased \$2,537,535. This amount takes into account all changes in fair value (including purchases and sales) that occurred during the year. The unrealized gain on these investments held at June 30, 2020, was \$3,573,122. The calculation of realized gains and losses on investments is independent of the calculation of the change in fair value of investments. In addition, gains and losses of the current period include unrealized amounts from the prior period.

Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations.

The City's formal investment policy limits investment choices to the following:

- Certificates of deposit in eligible depositories-50% sector limit, must be insured or fully collateralized.
- Negotiable or brokered certificates of deposit issued by a nationally or state-chartered bank or savings and loan association; that are rated "A" (long-term) or A-1 (short-term) or the equivalent or better by a NRSRO-50% sector limit, 5% issuer limit.
- Commercial paper, of prime quality that is rated within the top two ratings by a nationally recognized rating agency. All commercial paper must be issued by corporations organized and doing business in the United States-50% sector limit, 5% issuer limit.
- Interest bearing savings accounts in banks and savings and loan institutions doing business in this state whose accounts are insured by federal deposit insurance for their industry. Deposits in excess of the insured amount are secured by collateral as outlined in A.R.S. §35-323.
- The pooled investment funds established by the state treasurer pursuant to A.R.S. §35-326.
- Obligations issued or guaranteed by the United States or any of the senior debt of its agencies, sponsored agencies, corporations, sponsored corporations or instrumentalities.
- Bonds or other evidence of indebtedness of this state or any of its counties, incorporated cities or school districts-40% sector limit, 5% issuer limit.
- Bonds, notes or evidences of indebtedness issued by any county improvement district or municipal improvement district of any state to finance local improvements authorized by law, if the principal and interest of the obligations are payable from assessments on real property within the improvement district-40% sector limit, 5% issuer limit. An investment shall not be made if:
 - The face value of all such obligations, and similar obligations outstanding, exceeds 50% of the market value of the real property, and if improvements on which the bonds or the assessments for the payment of principal and interest on the bonds are liens inferior only to the liens for general ad valorem taxes.

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 3 CASH AND INVESTMENTS (CONTINUED)

Credit Risk (Continued)

- A default in payment of principal or interest on the obligations to be purchased has occurred within five years of the date of investment, or, if the obligations were issued less than five years before the date of investment, a default in the payment of principal or interest has occurred on the obligations to be purchased or on any other obligation of the issuer within five years of the investment.
- Bonds, debentures, notes or other evidences of indebtedness that are denominated in United States dollars and that carry at a minimum an "A" or better rating, at the time of purchase, from at least two nationally recognized rating agencies-50% sector limit, 5% issuer limit.
- Repurchase agreements with a maximum maturity of one hundred eighty days-40% sector limit, 20% issuer limit.

Interest Rate Risk

Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. Generally, the longer the maturity period of an investment, the greater the sensitivity of its fair value to the changes in market interest rates.

The City does not have a formal investment policy that manages its exposure to declines in fair values in order to minimize its exposure to fair value losses arising from increasing interest rates. At June 30, 2020, credit and interest rate risk for the City's investments was as follows:

	Amount	Maturities		Moody's Investors Service	Standard & Poor's
		Less Than 1 Year	1-5 Years		
US Agency Mortgaged Backed Securities	\$ 32,677,897	\$ 713,628	\$ 31,964,269	Aaa	AA+
Supranational Agency Bond	1,005,882	-	1,005,882	Aaa	AAA
US Treasury Note	65,361,241	2,692,906	62,668,335	Aaa	AA+
State Treasurer's Investment Pool 5	25,481,478	25,481,478	-	Unrated	Unrated
State Treasurer's Investment Pool 7	54,158,802	54,158,802	-	Unrated	Unrated
Total Investments	<u>\$ 178,685,300</u>	<u>\$ 83,046,814</u>	<u>\$ 95,638,486</u>		

Custodial Credit Risk

In the case of deposits, this is the risk that in the event of a bank failure, the City's deposits may not be returned to it. For an investment, this is the risk that, in the event of the failure of the counterparty, the City will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. The City does not have a formal deposit or investment policy for custodial credit risk.

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 3 CASH AND INVESTMENTS (CONTINUED)

Custodial Credit Risk (Continued)

Cash in bank — The carrying amount of City's operating account deposits at June 30, 2020, excluding fiduciary fund cash, was \$53,098,990 and the bank balance was \$54,389,863. The difference between the carrying amount and bank balance was due to outstanding checks and deposits, and other reconciling items. The City also held \$1,857,020 of cash deposits in a U.S. Government securities investment account, with maturity dates less than one year, at June 30, 2020. These balances were either covered by the Federal Depository Insurance Corporation (FDIC), National Credit Union Administration (NCUA), or collateralized at 102% of deposits not covered by FDIC. In addition, \$4,559,525 were held under the terms of lease-purchase agreements at June 30, 2020.

Fiduciary fund cash — The carrying amount of fiduciary deposits at June 30, 2020, was \$2,059 and the bank balance was also \$2,059. In addition, \$221,674 invested in State Treasurer's Investment Pool is not subject to custodial credit risk.

Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributable to the magnitude of deposits or investments in a single depository institution or issuer. The City does not have a formal investment policy for concentration of credit risk, nor does state law specify any requirements for concentration of credit risk. In addition, the City does not limit the amount that may be deposited or invested with any one institution.

At June 30, 2020, the following issuers represents more than 5% of the City's total investments: 36.4% in U.S. Treasury Notes, 18.3% in U.S. Agency Mortgage Backed Securities, and 44.6% invested in the State Treasurer's Investment Pool 7.

NOTE 4 PROPERTY TAX CALENDAR

The City levies real and personal property taxes on or before the third Monday in August that become due and payable in two equal installments. The first installment is due on the first day of October and becomes delinquent after the first business day of November. The second installment is due on the first day of March of the next year and becomes delinquent after the first business day of May.

A lien assessed against real and personal property attaches on the first day of January preceding assessment and levy.

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 5 RECEIVABLES

Receivables in the General, Special Revenue, Debt Service, Capital Projects, and Pension Trust Funds are considered to be fully collectible. Accordingly, an allowance for doubtful accounts has not been established in these funds. The allowances for doubtful accounts for receivables in the Water, Wastewater, and Sanitation Funds at June 30, 2020, are \$102,471, \$58,569, and \$30,100, respectively. Uncollectible amounts related to current period revenues of the Water, Wastewater, and Sanitation Funds are \$47,374, \$20,568 and \$11,008, respectively.

NOTE 6 CAPITAL ASSETS

A summary of capital asset activity for governmental activities on the government-wide financial statements for the year ended June 30, 2020, follows:

	Balance June 30, 2019	Additions/ Transfers	Deletions/ Transfers	Balance June 30, 2020
Governmental Activities:				
Nondepreciable Assets:				
Land	\$ 271,014,235	\$ 10,994,453	\$ -	\$ 282,008,688
Construction in Progress	13,310,889	23,818,739	(19,218,684)	17,910,944
Total Nondepreciable Capital Assets	<u>284,325,124</u>	<u>34,813,192</u>	<u>(19,218,684)</u>	<u>299,919,632</u>
Depreciable Assets:				
Buildings and Improvements	83,917,230	260,054	(182,981)	83,994,303
Improvements Other Than Buildings	27,015,743	18,398,640	-	45,414,383
Vehicles, Furniture, and Equipment	50,948,265	3,948,379	(2,237,430)	52,659,214
Infrastructure	405,832,630	6,009,407	-	411,842,037
Intangible Assets	1,965,259	-	-	1,965,259
Total Depreciable Capital Assets	<u>569,679,127</u>	<u>28,616,480</u>	<u>(2,420,411)</u>	<u>595,875,196</u>
Less Accumulated Depreciation for:				
Buildings and Improvements	31,428,875	2,294,978	-	33,723,853
Improvements Other than Buildings	3,726,305	1,454,042	-	5,180,347
Vehicles, Furniture and Equipment	38,132,377	4,337,920	(2,114,640)	40,355,657
Infrastructure	194,980,092	10,277,054	-	205,257,146
Intangible Assets	595,040	65,509	-	660,549
Total Accumulated Depreciation	<u>268,862,689</u>	<u>18,429,503</u>	<u>(2,114,640)</u>	<u>285,177,552</u>
Total Capital Assets Being Depreciated, Net	<u>300,816,438</u>	<u>10,186,977</u>	<u>(305,771)</u>	<u>310,697,644</u>
Total Governmental Activities Capital Assets, Net	<u>\$ 585,141,562</u>	<u>\$ 45,000,169</u>	<u>\$ (19,524,455)</u>	<u>\$ 610,617,276</u>

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 6 CAPITAL ASSETS (CONTINUED)

A summary of capital asset activity for business-type activities on the government-wide financial statements for the year ended June 30, 2020, follows:

	Balance June 30, 2019	Additions/ Transfers	Deletions/ Transfers	Balance June 30, 2020
Business-Type Activities:				
Nondepreciable Assets:				
Land	\$ 16,273,312	\$ 11,187	\$ -	\$ 16,284,499
Intangible Assets	1,523,755	-	-	1,523,755
Construction in Progress	730,822	1,116,766	(630,274)	1,217,314
Total Nondepreciable Capital Assets	<u>18,527,889</u>	<u>1,127,953</u>	<u>(630,274)</u>	<u>19,025,568</u>
Depreciable Assets:				
Water System	314,380,437	3,998,373	-	318,378,810
Sewer System	231,682,917	5,197,514	-	236,880,431
Wastewater Treatment System	81,877,353	-	-	81,877,353
Vehicles, Furniture and Equipment	38,993,591	4,255,155	(52,827)	43,195,919
Intangible Assets	2,980,551	-	-	2,980,551
Improvements Other than Buildings	808,883	-	-	808,883
Total Depreciable Capital Assets	<u>670,723,732</u>	<u>13,451,042</u>	<u>(52,827)</u>	<u>684,121,947</u>
Less Accumulated Depreciation for:				
Water System	108,696,536	6,378,888	-	115,075,424
Sewer System	90,395,102	5,334,876	-	95,729,978
Wastewater Treatment System	19,634,163	1,001,625	-	20,635,788
Vehicles, Furniture and Equipment	15,224,865	5,609,184	(52,827)	20,781,222
Intangible Assets	596,112	74,514	-	670,626
Improvements Other than Buildings	367,421	40,440	-	407,861
Total Accumulated Depreciation	<u>234,914,199</u>	<u>18,439,527</u>	<u>(52,827)</u>	<u>253,300,899</u>
Total Business-Type Activities Capital Assets Being Depreciated, Net	<u>435,809,533</u>	<u>(4,988,485)</u>	<u>-</u>	<u>430,821,048</u>
Total Business-Type Activities Capital Assets, Net	<u>\$ 454,337,422</u>	<u>\$ (3,860,532)</u>	<u>\$ (630,274)</u>	<u>\$ 449,846,616</u>

Depreciation expense was charged to functions and programs of the primary government as follows:

Governmental Activities:	
General Government	\$ 1,689,061
Public Safety	2,413,241
Highways and Streets	11,294,519
Health and Welfare	90,603
Economic and Community Development	182,556
Culture and Recreation	2,603,296
Transportation	112,338
Internal Services	43,889
Total	<u>\$ 18,429,503</u>
Business-Type Activities:	
Water	\$ 7,975,680
Wastewater	9,720,368
Sanitation	743,479
Total	<u>\$ 18,439,527</u>

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 7 INTERFUND BALANCES AND ACTIVITY

Interfund balances at June 30, 2020, were as follows:

Due to	Due From	Amounts
General Fund	Grants-In-Aids Funds	\$ 12,523
	Nonmajor Funds	167,061
		<u>179,584</u>
Internal Service Funds	Internal Service Funds	359,043
		<u>\$ 538,627</u>

At June 30, 2020, \$167,061 due from Nonmajor governmental funds and \$359,043 due from internal service funds were to cover deficit cash. In addition, General Fund reported \$128,000 advance to Development Fees Funds at June 30, 2020 for interfund projects.

Interfund transfers for the year ended June 30, 2020, were as follows:

<u>Fund</u>	<u>Transfers In</u>	<u>Transfers Out</u>
Governmental Funds:		
General Fund	\$ -	\$ 21,661,430
Dedicated Sales Tax Revenue Fund	-	8,147,865
Development Fees Fund	24,750,000	8,619,321
Grants-In-Aids Fund	166,910	1,060
Other Capital Project Funds	18,775,003	11,786,382
Nonmajor Governmental Funds	12,954,410	5,518,050
Total Governmental Funds	<u>56,646,323</u>	<u>55,734,108</u>
Enterprise Funds:		
Water Fund	1,419,527	4,623,977
Wastewater Fund	4,773,977	1,269,527
Total Enterprise Funds	<u>6,193,504</u>	<u>5,893,504</u>
Internal Service Funds:	5,714	1,217,929
Grand Total	<u>\$ 62,845,541</u>	<u>\$ 62,845,541</u>

Major transfers include \$15.8 million from the General Fund to the Development Fees Fund and \$1.1 million to the Other Capital Projects Fund to finance various construction projects, as well as city parks, library, and public safety facilities enhancement and improvement projects; and about \$2.7 million to the Vehicle and Equipment Replacement Funds to accumulate reserves for the future replacement of vehicles and equipment.

In FY20, about \$1.2 million was transferred from the closing of Printing Services Fund to the Equipment Replacement Funds. Dedicated Sales Tax Revenue Fund transfers included about \$6.1 million to the Debt Service Fund to service debt and \$1.5 million to the Development Fees Fund for street development. Nonmajor Governmental Funds transfers include \$5.0 million from the HURF Fund to the Development Fees Fund to finance street construction, and \$8.3 million from the Development Fees fund to Other Capital Project funds for various capital projects.

All other transfers between funds were routine in nature and consistent with the fund making the transfer.

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 8 LONG-TERM OBLIGATIONS

The City has issued general obligation bonds to acquire and construct water and sewer system improvements, street and highway improvements, library facilities, a multi-purpose recreation center and to refund prior outstanding general obligation bonds. The City has also issued governmental activities pledged revenue refunding obligations and highway user revenue refunding bonds to refund prior outstanding pledged revenue and highway user revenue bonds, as well as business-type activities water and sewer system revenue bonds to finance and acquire improvements to the water production and distribution system, sewer collection and treatment system, and wastewater treatment plant. The City also issued capital leases in the governmental activities and reports a liability for compensated absences in the governmental and business-type activities.

Compensated absences payable are paid from various funds in the same proportion that those funds pay payroll and employee benefit costs. During the year ended June 30, 2020, the City primarily paid for compensated absences from the General Fund.

A. Governmental Activities Long-Term Debt

Capital Leases. The City has acquired and installed heating, cooling, lighting, and street lighting equipment under the provisions of long-term lease agreements classified as capital leases for accounting purposes because they transfer ownership by the end of the lease term.

The following assets were acquired through capital leases:

	Governmental Activities
Class of Property	
Chiller/HVAC Upgrades	\$ 3,041,799
LED Streetlights	2,947,611
Less: Accumulated Depreciation	651,977
Carrying Value	<u>\$ 5,337,433</u>

The following schedule details debt service requirements to maturity for the City's capital lease payable at June 30, 2020.

<u>Year Ending June 30,</u>	Governmental Activities
2021	\$ 367,645
2022	384,210
2023	410,068
2024	423,648
2025	437,694
2026-2030	1,867,767
2031-2034	906,472
Total Minimum Lease Payments	4,797,504
Less Amount Representing Interest	(709,587)
Present Value of Net Minimum Lease Payments	<u>\$ 4,087,917</u>

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 8 LONG-TERM OBLIGATIONS (CONTINUED)

A. Governmental Activities Long-Term Debt (Continued)

General Obligation Bonds. The general obligation bonds are secured by property taxes (ad valorem taxes) levied by the City on all taxable property within the City sufficient to pay all principal and interest on the bonds as they come due. These bonds are issued for the purpose of constructing capital assets and related improvements. The bonds are backed by the taxing authority of the City and are approved by the voters. Principal payments are due annually and interest payments are due semiannually.

On December 14, 2017, the City issued \$21,350,000 of General Obligation Refunding Bonds, Tax-Exempt Series 2017A and Taxable Series 2017B to refund \$20,900,000 of outstanding General Obligation Bonds, Taxable Series 2009, and pay related bond issue costs. The issuance yielded \$23,395,316 of net bond proceeds, including a bond premium of \$2,464,479, less bond issue costs of \$419,162. The City deposited \$23,395,316 of the net bond proceeds with an escrow agent, who deposited the proceeds in an irrevocable trust. The proceeds are invested in securities backed by the U.S. Government that are designed to meet all future debt service requirements of the defeased \$20,900,000 of General Obligation Bonds, Taxable Series 2009.

On May 7, 2019, the City issued \$21,390,000 of General Obligation Bonds, Series 2019 to provide funds for the acquisition and construction of capital projects including a resource center, park improvements, and expansion of police facilities and to pay related bond issue costs. The issuance yielded \$24,320,479 of net bond proceeds, including a bond premium of \$2,930,479, less bond issue costs of \$77,497.

The following issues are currently outstanding:

Issue	Interest Rate	Maturity	Outstanding Principal June 30, 2020
2017A Series Bonds	1.88 - 2.40%	2029	\$ 14,740,000
2017B Series Bonds	4.00 - 5.00%	2021	2,190,000
2019 Series Bonds	3.00 - 5.00%	2039	20,765,000
Total			<u>\$ 37,695,000</u>

Pledged Revenue Obligations. These obligations were issued to refund outstanding MDC Revenue Bonds and are backed by the City's general excise taxes. Principal payments are due annually and interest payments are due semiannually.

The following issues are currently outstanding:

Issue	Interest Rate	Maturity	Outstanding Principal June 30, 2020
2013 Series Bonds	2.00 - 4.00%	2020	\$ 1,045,000
2016 Series Bonds (96.875) of Total issue)	2.00 - 5.00%	2024	11,236,921
Total			<u>\$ 12,281,921</u>

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 8 LONG-TERM OBLIGATIONS (CONTINUED)

A. Governmental Activities Long-Term Debt (Continued)

Pledged Revenue Obligations – Direct Placement. On July 25, 2019, the obligation was issued to fund capital water and infrastructure projects and are backed by the City's general excise taxes. Principal and interest payments are due annually and semiannually, respectively.

Excise Tax and State Shared Revenues have been pledged for payment of these Direct Placement notes. The outstanding notes contain provisions that (1) the pledged revenues must pay these notes first and then be applied to other obligations and (2) that Excise Tax Revenues and State Shared Revenues shall be retained and maintained to at least three times the annual debt service for the current fiscal year. If the revenues are not equal to this amount the City is required to the extent permitted by applicable law to impose new exactions or increase the rates of the Excise Tax Revenues to meet the requirement. In the event of default the Trustee may take action at law and have a court appoint a receiver of the pledged revenues for amounts due, but may not accelerate future payments.

The following issues are currently outstanding:

Issue	Interest Rate	Maturity	Outstanding Principal June 30, 2020
2019 Series Bonds	2.36	2031	\$ 10,096,000

A summary of changes in governmental activities long-term liabilities reported in the government-wide financial statements for the year ended June 30, 2020, follows:

	Balance July 1, 2019	Additions	Deletions	Balance June 30, 2020	Due Within One Year
Governmental Activities:					
Compensated Absences	\$ 5,869,497	\$ 4,129,927	\$ 3,712,855	\$ 6,286,569	\$ 5,029,255
Capital Leases Payable	4,358,487	-	270,570	4,087,917	263,548
Claims Payable	1,797,451	1,215,806	461,017	2,552,240	1,614,522
General Obligation Bonds	39,940,000	-	2,245,000	37,695,000	2,320,000
Pledged Revenue Bonds	17,476,549	10,096,000	5,194,628	22,377,921	5,046,259
Unamortized Premiums and Discounts, Net	6,842,359	-	728,411	6,113,948	728,411
Net Pension and Other Postemployment Benefits Liability	55,076,228	14,005,815	8,440,962	60,641,081	-
Total	<u>\$ 131,360,571</u>	<u>\$ 29,447,548</u>	<u>\$ 21,053,443</u>	<u>\$ 139,754,676</u>	<u>\$ 15,001,995</u>

Annual debt service requirements to maturity on governmental activities bonds at June 30, 2020, are summarized as follows:

Year Ending June 30,	Governmental Activities					
	General Obligation Bonds		Pledged Revenue Refunding Obligations		Pledged Revenue Obligation (Direct Placement)	
	Principal	Interest	Principal	Interest	Principal	Interest
2021	\$ 2,320,000	\$ 1,536,700	\$ 4,503,259	\$ 379,880	\$ 543,000	\$ 225,451
2022	2,235,000	1,451,400	2,179,575	270,900	771,000	207,255
2023	2,335,000	1,351,000	2,290,976	156,350	789,000	188,635
2024	2,460,000	1,245,250	2,402,376	36,229	808,000	169,566
2025	2,590,000	1,133,900	905,735	-	827,000	150,049
2026-30	13,170,000	3,674,550	-	-	4,434,000	441,202
2031-35	5,670,000	1,777,500	-	-	1,924,000	22,963
2036-40	6,915,000	502,150	-	-	-	-
Total	<u>\$ 37,695,000</u>	<u>\$ 12,672,450</u>	<u>\$ 12,281,921</u>	<u>\$ 843,359</u>	<u>\$ 10,096,000</u>	<u>\$ 1,405,121</u>

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 8 LONG-TERM OBLIGATIONS (CONTINUED)

B. Business-Type Activities Long-Term Debt

Water and Sewer Revenue Bonds. The revenue produced by the water and sewer facilities secures water and sewer revenue bonds. The voters must approve these bonds. Principal payments are due annually and interest payments are due semiannually. The following issues are currently outstanding.

Issue	Interest Rate	Maturity	Outstanding Principal June 30, 2020
2010 Series Obligations	3.0 - 5.0%	2020	\$ 405,000
2016 Series Obligations	2.0 - 4.0%	2036	7,175,000
			<u>\$ 7,580,000</u>

Pledged Revenue Refunding Obligations. These obligations were issued to refund outstanding MDC Revenue Bonds and are backed by the City's general excise taxes. Principal payments are due annually and interest payments are due semiannually.

The following issue is currently outstanding.

Issue	Interest Rate	Maturity	Outstanding Principal June 30, 2020
2016 Series Bonds (3.13% of Total Issue)	2.00 - 5.00%	2024	\$ 363,079

A summary of changes in long-term liabilities for the business-type activities reported in the government-wide financial statements for the year ended June 30, 2020, follows:

	Balance July 1, 2019	Additions	Deletions	Balance June 30, 2020	Due Within One Year
Business-type Activities:					
Compensated Absences	\$ 741,299	\$ 485,930	\$ 497,721	\$ 729,508	\$ 583,606
Water and Sewer Revenue Bonds	8,270,000	-	690,000	7,580,000	715,000
Pledged Revenue Bonds	498,452	-	135,373	363,079	111,741
Unamortized Premiums and Discounts, Net	1,049,508	-	115,555	933,953	67,496
Net Pension and Postemployment Benefits Liability	6,833,952	1,319,390	740,953	7,412,389	-
Total	<u>\$ 17,393,211</u>	<u>\$ 1,805,320</u>	<u>\$ 2,179,602</u>	<u>\$ 17,018,929</u>	<u>\$ 1,477,843</u>

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 8 LONG-TERM OBLIGATIONS (CONTINUED)

B. Business-Type Activities Long-Term Debt (Continued)

Annual debt service requirements to maturity on business-type activities bonds at June 30, 2020, are summarized as follows:

Year Ending June 30,	Business-Type Activities			
	Water and Sewer Revenue Bonds		Pledged Revenue Refunding Obligations	
	Principal	Interest	Principal	Interest
2021	\$ 715,000	\$ 274,600	\$ 111,741	\$ 12,270
2022	315,000	262,000	70,425	8,750
2023	325,000	249,000	74,024	5,050
2024	340,000	235,400	77,624	1,170
2025	355,000	221,200	29,265	-
2026-30	1,995,000	872,800	-	-
2031-35	2,425,000	424,000	-	-
2036-40	1,110,000	22,600	-	-
Total	<u>\$ 7,580,000</u>	<u>\$ 2,561,600</u>	<u>\$ 363,079</u>	<u>\$ 27,240</u>

The City has pledged certain future revenues to repay specific revenue bonded debt as follows:

- The City has pledged future excise tax revenues, including local sales taxes and state-shared sales and income taxes, to repay \$41.6 million of Pledged Revenue Obligations, Series 2013, 2016 and 2019. At year-end, \$22.7 million in bonds remains outstanding to be repaid with future excise tax revenues over the next 15 years. For the year ended June 30, 2020, the excise taxes available to service debt was \$81.4 million, and the principal and interest on this debt was \$6.0 million (7.8% of the available pledged revenues).
- The City has pledged future water and wastewater utility revenues to repay \$18.1 million of Water and Sewer System Revenue Obligations, Series 2010 and 2016. At year-end, \$7.6 million in bonds remains outstanding to be repaid with future water and sewer revenues over the next 17 years. For the year ended June 30, 2020, the net water and wastewater utility revenues available to service debt was \$19.0 million and the principal and interest on this debt was \$1.1 million (4.3% of the available net pledged revenues).

NOTE 9 SELF-INSURANCE

The City is exposed to various risks of loss and administers and accounts for these risks in the Self-insurance Fund, which is an internal service fund. In fiscal year 2005, the City established a self-insurance fund to manage losses related to torts; theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters. The City is self-insured for the first \$1,000,000 of any general liability and automobile liability occurrence and purchases commercial insurance to protect from losses in excess of \$50,000.

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 9 SELF-INSURANCE (CONTINUED)

The excess commercial insurance coverages and limits follow:

Coverage	Limit
Property and Boiler & Machinery	\$ 250,000,000
Public Entity/Excess Liability	30,000,000
Crime	5,000,000
Privacy/Network Liability (Cyber)	10,000,000
Environmental Liability	2,000,000

Beginning July 1, 2018, the City is self-insured against workers' compensation claims. The City is self-insured for the first \$750,000 million for wildland team firefighters and \$500,000 for all other employees. The excess commercial insurance coverage limits are \$1.0 million per occurrence and aggregate and \$1.0 million for the liability period.

The City retains all risks not covered by commercial insurance carriers and the Pool and has effectively managed risk through various employee education and prevention programs. There have not been any losses in excess of the coverages provided by the Self-insurance Fund since its inception.

Funds receiving insurance coverage pay monthly premiums to the Risk Management fund and Workers' Compensation Fund based upon a budget model taking into consideration actuarial analysis and projections, prior loss experience, staffing, and operating budget. Premium payments to insurance carriers, loss control, and self-insurance expenses are made directly from the Self-insurance Fund.

Based on information provided by the actuary, claims liabilities are reported when it is probable that a loss has occurred, and the amount of the loss can be reasonably estimated. Claims liabilities include case reserves, the development of known claims, claims that have been incurred but not reported, and allocated loss adjustment expenses. The claims liabilities consider the effects of inflation, claims settlement trends, such as frequency and severity, and other factors. These liabilities are limited to the self-funded retention and deductibles.

Changes in the balances of claims liabilities during the past two years follows:

	2020	2019
Beginning Balance - July 1	\$ 1,797,451	\$ 935,032
Current Year Claims and Changes in Estimates	1,215,806	1,303,523
Claim Payments	(461,017)	(441,104)
Ending Balance - June 30	<u>\$ 2,552,240</u>	<u>\$ 1,797,451</u>

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 10 PENSION PLANS

The City contributes to the plans described below. The plans are component units of the State of Arizona.

At June 30, 2020, the City reported the following aggregate amounts related to pensions plans to which it contributes:

	Governmental Activities	Business-Type Activities	Total
Statement of Net Position and Statement of Activities			
Net Pension and OPEB Liabilities			
Pension			
ASRS	\$ 26,161,027	\$ 7,393,956	\$ 33,554,983
PSPRS	32,887,032	-	32,887,032
EORP/CORP	1,572,591	-	1,572,591
OPEB*	20,431	18,433	38,864
Total	<u>\$ 60,641,081</u>	<u>\$ 7,412,389</u>	<u>\$ 68,053,470</u>
Deferred Outflows of Resources Related to Pensions and OPEB			
Pension			
ASRS	\$ 4,080,079	\$ 1,054,982	\$ 5,135,061
PSPRS	12,241,977	-	12,241,977
EORP/CORP	469,657	-	469,657
OPEB*	378,884	71,740	450,624
Total	<u>\$ 17,170,597</u>	<u>\$ 1,126,722</u>	<u>\$ 18,297,319</u>
Deferred Inflows of Resources Related to Pensions and OPEB			
Pension			
ASRS	\$ 1,620,039	\$ 476,695	\$ 2,096,734
PSPRS	1,037,588	-	1,037,588
EORP/CORP	77,074	-	77,074
OPEB*	461,557	37,006	498,563
Total	<u>\$ 3,196,258</u>	<u>\$ 513,701</u>	<u>\$ 3,709,959</u>
Pension and OPEB Expense			
Pension			
ASRS	\$ 3,640,891	\$ 892,966	\$ 4,533,857
PSPRS	6,529,562	-	6,529,562
EORP/CORP	236	-	236
OPEB*	69,131	10,022	79,153
Total	<u>\$ 10,239,820</u>	<u>\$ 902,988</u>	<u>\$ 11,142,808</u>

* EORP/CORP and OPEB balances are not material to the financial statement as a whole, and therefore, note disclosure has been omitted.

The City's accrued payroll and employee benefits includes \$1,076,821 of outstanding pension contribution amounts payable to all pension plans for the year ended June 30, 2020. Also, the City reported \$7,699,847 of pension contributions as expenditures in the governmental funds related to all pension plans to which it contributes.

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 10 PENSION PLANS (CONTINUED)

During the year ended June 30, 2020, the City did not liquidate any of its pension liabilities. Liquidations of these liabilities would be paid primarily from the General Fund.

A. Arizona State Retirement System

Plan description. City employees not covered by the other pension plans described below participate in the Arizona State Retirement System (ASRS). The ASRS administers a cost-sharing multiple-employer defined benefit pension plan, a cost-sharing multiple-employer defined benefit health insurance premium benefit (OPEB) plan, and a cost-sharing multiple-employer defined benefit long-term disability (OPEB) plan. The Arizona State Retirement System Board governs the ASRS according to the provisions of A.R.S. Title 38, Chapter 5, Articles 2n and 2.1. The ASRS issues a publicly available financial report that includes its financial statements and required supplementary information. The report is available on its website at www.azasrs.gov.

Benefits provided. The ASRS provides retirement, health insurance premium supplement, long-term disability, and survivor benefits. State statute establishes benefit terms. Retirement benefits are calculated on the basis of age, average monthly compensation, and service credit as follows:

ASRS	Retirement Initial Membership Date:	
	Before July 1, 2011	On or After July 1, 2011
Years of Service and Age Required to Receive Benefit	Sum of years and age equals 80 10 years, age 62 5 years, age 50* Any years, age 65	30 years, age 55 25 years, age 60 10 years, age 62 5 years, age 50* Any years, age 65
Final Average Salary is Based on	Highest 36 consecutive months of last 120 months	Highest 60 consecutive months of last 120 months
Benefit Percent per Year of Service	2.1% to 2.3%	2.1% to 2.3%

* With actuarially reduced benefits.

Retirement benefits for members who joined the ASRS prior to September 13, 2013, are subject to automatic cost-of-living adjustments based on excess investment earnings. Members with a membership date on or after September 13, 2013, are not eligible for cost-of-living adjustments. Survivor benefits are payable upon a member's death. For retired members, the retirement benefit option chosen determines the survivor benefit. For all other members, the beneficiary is entitled to the member's account balance that includes the member's contributions and employer's contributions, plus interest earned.

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 10 PENSION PLANS (CONTINUED)

A. Arizona State Retirement System (Continued)

Contributions. In accordance with state statutes, annual actuarial valuations determine active member and employer contribution requirements. The combined active member and employer contribution rates are expected to finance the costs of benefits employees earn during the year, with an additional amount to finance any unfunded accrued liability. For the year ended June 30, 2020, statute required active ASRS members were required by statute to contribute at the actuarially determined rate of 11.94% of the members' annual covered payroll, and statute required the City to contribute at the actuarially determined rate of 11.45% of the active members' annual covered payroll. In addition, the City was required by statute to contribute at the actuarially determined rate of 10.29% of annual covered payroll of retired members who worked for the City in positions that an employee who contributes to the ASRS would typically fill. The City's contributions to the pension plan for the year ended June 30, 2020, was \$2,922,778.

During fiscal year 2020, the City paid for ASRS pension contributions as follows: 61.24% from the General Fund, 21.10% from other major funds, and 17.67% from other funds.

Net Pension Liability. At June 30, 2020, the City reported a liability of \$33,554,983 for its proportionate share of the ASRS' net pension liability. The net pension liability was measured as of June 30, 2019. The total pension liability used to calculate the net pension liability was determined using update procedures to roll forward the total liability from an actuarial valuation as of June 30, 2018, to the measurement date of June 30, 2019. The City's proportion of the net pension liability was based on the City's actual contributions to the plan relative to the total of all participating employers' contributions for the year ended June 30, 2019. The City's proportion measured as of June 30, 2019, was 0.23%, which remained substantially unchanged from its proportion measured as of June 30, 2018.

Pension expense and deferred outflows/inflows of resources. For the year ended June 30, 2020, the City recognized pension expense for ASRS of \$4,533,857. At June 30, 2020, the City reported deferred outflows of resources and deferred inflows of resources related to pensions from the sources on the following page:

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 10 PENSION PLANS (CONTINUED)

A. Arizona State Retirement System (Continued)

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences Between Expected and Actual Experience	\$ 606,180	\$ 6,309
Change in Assumptions or Other Inputs	141,838	1,336,225
Net Difference Between Projected and Actual Earnings on Pension Plan Investments	-	754,200
Change in Proportion and Differences Between City Contributions and Proportionate Share of Contributions	1,464,265	-
City Contributions Subsequent to the Measurement Date	2,922,778	-
Total	<u>\$ 5,135,061</u>	<u>\$ 2,096,734</u>

The \$2,922,778 reported as deferred outflows of resources related to ASRS pensions resulting from city contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ending June 30, 2021. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to ASRS pensions will be recognized in pension expense as follows:

<u>Year Ending June 30,</u>	<u>Net Outflow/ (Inflow)</u>
2021	\$ 519,720
2022	(461,328)
2023	(144,838)
2024	201,995

Actuarial Assumptions. The significant actuarial assumptions used to measure the total pension liability are as follows:

Actuarial Valuation Date	June 30, 2018
Actuarial Roll Forward Date	June 30, 2019
Actuarial Cost Method	Entry age normal
Discount Rate	7.50%
Projected Salary Increases	2.7 - 7.2%
Inflation	2.30%
Permanent Benefit Increase	Included
Mortality Rates	2017 SRA Scale U-MP

Actuarial assumptions used in the June 30, 2018, valuation were based on the results of an actuarial experience study for the 5-year period ended June 30, 2016.

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 10 PENSION PLANS (CONTINUED)

A. Arizona State Retirement System (Continued)

The long-term expected rate of return on ASRS pension plan investments was determined to be 7.5% using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target allocation and best estimates of geometric real rates of return for each major asset class are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Arithmetic Rate of Return
Equity	50 %	6.09 %
Credit	20	5.36
Interest Rate Sensitive Bonds	10	1.62
Real Estate	20	5.85
Total	100 %	

Discount Rate. The discount rate used to measure the total pension liability was 7.5%. The projection of cash flows used to determine the discount rate assumed that contributions from participating employers will be made based on the actuarially determined rates based on the ASRS Board's funding policy, which establishes the contractually required rate under Arizona statute. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the City's proportionate share of the ASRS net pension liability to changes in the discount rate. The following table presents the City's proportionate share of the net pension liability calculated using the discount rate of 7.5%, as well as what the City's proportionate share of the net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (6.5%) or 1 percentage point higher (8.5%) than the current rate:

	1% Decrease	Current Discount Rate	1% Increase
City's Proportionate Share of the Net Pension Liability	\$ 47,756,513	\$ 33,554,983	\$ 21,686,159

Pension plan fiduciary net position. Detailed information about the pension plan's fiduciary net position is available in the separately issued ASRS financial report.

**CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020**

NOTE 10 PENSION PLANS (CONTINUED)

B. Public Safety Personnel Retirement System

Plan descriptions. City police and fire employees who are regularly assigned hazardous duty participate in the Public Safety Personnel Retirement System (PSPRS). The PSPRS administers agent and cost-sharing multiple-employer defined benefit pension plans and agent and cost-sharing multiple-employer defined benefit health insurance premium benefit (OPEB) plans. A nine-member board known as the Board of Trustees and the participating local boards govern the PSPRS according to the provisions of A.R.S. Title 38, Chapter 5, Article 4.

The PSPRS issues a publicly available financial report that includes financial statements and required supplementary information for the PSPRS plans. The report is available on the PSPRS website at www.psprs.com.

Benefits provided. The PSPRS provides retirement, health insurance premium supplement, disability, and survivor benefits. State statute establishes benefit terms. Retirement, disability, and survivor benefits are calculated on the basis of age, average monthly compensation, and service credit as follows:

PSPRS	Initial Membership Date:		
	Before January 1, 2012	On or After January 1, 2012 and Before July 1, 2017	On or After July 1, 2017
Retirement and Disability			
Years of Service and Age Required to Receive Benefit	20 years of service, any age 15 years of services, age 62	25 years of service or 15 years of credit service, age 52.5	15 years of service, age 52.5* 15 or more years of service, age
Final Average Salary is Based on	Highest 36 consecutive month of last 20 years	Highest 60 consecutive months of last 20 years	Highest consecutive months of last 15 years
Benefit Percent			
Normal Retirement	50% less 2.0% for each year of credited service less than 20 years OR plus 2.0% to 2.5% for each year of credited service over 20 years, not to exceed 80%	1.5% to 2.5% per year of credited service, not to exceed 80%	1.5% to 2% per year of credited service, not to exceed 80%
Accidental Disability Retirement	50% or normal retirement, whichever is greater		
Catastrophic Disability Retirement	90% for the first 60 months then reduced to either 62.5% or normal retirement, whichever is greater		
Ordinary Disability Retirement	Normal retirement calculated with actual years of credited service or 20 years of credited service, whichever is greater, multiplied by years of credited service (not to exceed 20 years) divided by 20		
Survivor Benefit			
Retired Members	80% to 100% of retired member's pension benefit		
Active Members	80% to 100% of accidental disability retirement benefit or 100% of average monthly compensation if death was the result of injuries received on the job		

Retirement is subject to automatic cost-of-living adjustments based on inflation. PSPRS also provides temporary disability benefits of 50% of the member's compensation for up to 12 months.

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 10 PENSION PLANS (CONTINUED)

B. Public Safety Personnel Retirement System (Continued)

Employees covered by benefit terms. At June 30, 2020, the following employees were covered by the agent pension plans' benefit terms:

	PSPRS Police	PSPRS Fire
Inactive Employees or Beneficiaries Currently Receiving Benefits	32	12
Inactive Employees Entitled to But Not Yet Receiving Benefits	26	6
Active Employees	102	61
Total	<u>160</u>	<u>79</u>

Contributions. State statutes establish the pension contribution requirements for active PSPRS employees. In accordance with state statutes, annual actuarial valuations determine employer contribution requirements for PSPRS pension benefits. The combined active member and employer contribution rates are expected to finance the costs of benefits employees earn during the year, with an additional amount to finance any unfunded accrued liability. Contributions rates for the year ended June 30, 2020, are indicated below. Rates are a percentage of active members' annual covered payroll.

	Active Member Pension	City Pension
PSPRS-Police Tier 1 & 2	7.65 %	29.67 %
PSPRS-Police Tier 3	9.94	24.74
PSPRS-Fire Tier 1 & 2	7.65	27.84
PSPRS-Fire Tier 3	9.94	22.16

In addition, statute required the City to contribute at the actuarially determined rate indicated below of annual covered payroll of retired members who worked for the City in positions that an employee who contributes to the PSPRS would typically fill.

	PSPRS Police	PSPRS Fire
Pension	15.06 %	12.22 %

The City's contributions to the plans for the year ended June 30, 2020, were:

	Pension
PSPRS-Police Tier 1 & 2	\$ 2,555,792
PSPRS-Police Tier 3	369,306
PSPRS-Fire Tier 1 & 2	1,635,024
PSPRS-Fire Tier 3	57,726

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 10 PENSION PLANS (CONTINUED)

B. Public Safety Personnel Retirement System (Continued)

During fiscal year 2020, the City paid for PSPRS pension contributions as follows: 55.24% from the General Fund and 44.76% from other major funds.

Pension Liability. At June 30, 2020, the City reported the following net pension liabilities:

	Net Pension Liability
PSPRS-Police	\$ 21,190,116
PSPRS-Fire	11,696,916

The net pension liabilities were measured as of June 30, 2019, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date. The total liabilities as of June 30, 2019, reflect changes of actuarial assumptions to decrease the investment rate of return from 7.40% to 7.30% and update the mortality rates.

Pension actuarial assumptions. The significant actuarial assumptions used to measure the total pension liability are as follows:

PSPRS and CORP-Pension	
Actuarial Valuation Date	June 30, 2019
Actuarial Cost Method	Entry Age Normal
Investment Rate of Return	7.30%
Wage Inflation	3.50%
Price Inflation	2.50%
Cost-of-Living Adjustment	1.75%
Mortality Rates	PubS-2010 tables

Actuarial assumptions used in the June 30, 2019, valuation were based on the results of an actuarial experience study for the five-year period ended June 30, 2016.

The long-term expected rate of return on PSPRS plan investments was determined to be 7.30% using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expenses and inflation) are developed for each major asset class. The target allocation and best estimates of geometric real rates of return for each major asset class are summarized in the following table:

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 10 PENSION PLANS (CONTINUED)

B. Public Safety Personnel Retirement System (Continued)

Asset Class	Target Allocation	Long-Term Expected Geometric Real Rate of Return
Short-Term Investments	2 %	0.25 %
Risk Parity	4	4.01
Fixed Income	5	3.00
Real Assets	9	6.75
GTS	12	4.01
Private Equity	12	8.40
Real Estate	10	4.50
Private Credit	16	5.36
Non-U.S. Equity	14	5.00
U.S. Equity	16	4.75
Total	<u>100 %</u>	

Pension discount rates. At June 30, 2019, the discount rate used to measure the PSPRS total pension liabilities was 7.30%, which was a decrease of 0.10 from the discount rate used as of June 30, 2018. The projection of cash flows used to determine the discount rates assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between the actuarially determined contribution rate and the member rate. Based on those assumptions, the pension plans' fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 10 PENSION PLANS (CONTINUED)

B. Public Safety Personnel Retirement System (Continued)

Changes in the Net Pension Liability (Asset)

PSPRS-Police

	Total Pension Liability (a)	Increase (Decrease) Plan Fiduciary Net Position (b)	Net Pension Liability (Asset) (a) - (b)
Balances - June 30, 2019	\$ 46,647,737	\$ 27,513,750	\$ 19,133,987
Adjustment to Beginning of Year	-	(16,823)	16,823
Changes for the Year:			
Service Cost	2,082,977	-	2,082,977
Interest on Total Pension Liability	3,552,659	-	3,552,659
Differences Between Expected and Actual Experience in the Measurement of the Pension Liability	(207,819)	-	(207,819)
Changes in Assumptions or Other Inputs	1,724,828	-	1,724,828
Contributions - Employer	-	2,793,143	(2,793,143)
Contributions - Employee	-	802,184	(802,184)
Net Investment Income	-	1,545,862	(1,545,862)
Benefit Payments, Including Refunds of Employee Contributions	(1,443,623)	(1,443,623)	-
Administrative Expense	-	(27,850)	27,850
Net Changes	5,709,022	3,652,893	2,056,129
	<u>\$ 52,356,759</u>	<u>\$ 31,166,643</u>	<u>\$ 21,190,116</u>

Changes in the Net Pension Liability (Asset)

PSPRS-Fire

	Total Pension Liability (a)	Increase (Decrease) Plan Fiduciary Net Position (b)	Net Pension Liability (Asset) (a) - (b)
Balances - June 30, 2019	\$ 34,323,976	\$ 23,760,847	\$ 10,563,129
Adjustment to Beginning of Year	-	(10,545)	10,545
Changes for the Year:			
Service Cost	1,441,304	-	1,441,304
Interest on Total Pension Liability	2,606,870	-	2,606,870
Differences Between Expected and Actual Experience in the Measurement of the Pension Liability	(392,200)	-	(392,200)
Changes in Assumptions or Other Inputs	841,106	-	841,106
Contributions - Employer	-	1,584,692	(1,584,692)
Contributions - Employee	-	497,947	(497,947)
Net Investment Income	-	1,315,049	(1,315,049)
Benefit Payments, Including Refunds of Employee Contributions	(1,074,604)	(1,074,604)	-
Administrative Expense	-	(23,850)	23,850
Net Changes	3,422,476	2,288,689	1,133,787
Balances - June 30, 2020	<u>\$ 37,746,452</u>	<u>\$ 26,049,536</u>	<u>\$ 11,696,916</u>

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 10 PENSION PLANS (CONTINUED)

B. Public Safety Personnel Retirement System (Continued)

Sensitivity of the City's net pension liability to changes in the discount rate. The following table presents the City's net pension liabilities calculated using the discount rates noted above, as well as what the City's net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (6.30%) or 1 percentage point higher (8.30%) than the current rate:

	1% Decrease	Current Discount Rate	1% Increase
Net Pension Liability			
PSPRS - Police	\$ 29,773,450	\$ 21,190,116	\$ 14,330,510
PSPRS - Fire	17,759,720	11,696,916	6,803,425

Pension plan fiduciary net position. Detailed information about the pension plans' fiduciary net position is available in the separately issued PSPRS reports.

Pension expense. For the year ended June 30, 2020, the City recognized the following pension expense:

	Pension Expense
PSPRS-Police	\$ 4,058,741
PSPRS-Fire	2,470,821

Pension deferred outflows/inflows of resources. At June 30, 2020, the City reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

PSPRS-Police	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences Between Expected and Actual Experience	\$ 1,028,010	\$ 578,914
Change in Assumptions or Other Inputs	3,112,673	-
Net Difference Between Projected and Actual Earnings on Pension Plan Investments	458,268	-
City Contributions Subsequent to the Measurement Date	2,925,098	-
Total	<u>\$ 7,524,049</u>	<u>\$ 578,914</u>
PSPRS-Fire	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences Between Expected and Actual Experience	\$ 612,822	\$ 458,674
Change in Assumptions or Other Inputs	2,025,780	-
Net Difference Between Projected and Actual Earnings on Pension Plan Investments	386,576	-
City Contributions Subsequent to the Measurement Date	1,692,750	-
Total	<u>\$ 4,717,928</u>	<u>\$ 458,674</u>

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 10 PENSION PLANS (CONTINUED)

B. Public Safety Personnel Retirement System (Continued)

The amounts reported as deferred outflows of resources related to pensions resulting from city contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ending June 30, 2021. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

<u>Year Ending June 30,</u>	<u>PSPRS Police</u>	<u>PSPRS Fire</u>
2021	\$ 1,155,345	\$ 556,627
2022	730,436	298,949
2023	687,558	459,755
2024	566,556	437,497
2025	305,217	291,570
Thereafter	574,925	522,106

NOTE 11 FUND BALANCES

The fund balance classifications of the governmental funds as of June 30, 2020, were as follows:

	General Fund	Dedicated Sales Tax Revenue Fund	Public Safety Sales Tax Revenue Fund	Development Fees Funds	Grants-In-Aids Funds	Other Capital Projects Funds	Nonmajor Governmental Funds	Total Governmental Funds
Fund Balances:								
Nonspendable:								
Inventory	\$ 9,415	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 19,971	\$ 29,386
Prepaid Items	507,805	-	49,753	-	509	-	715,180	1,273,247
Advances to Other Funds	128,000	-	-	-	-	-	-	128,000
Restricted for:								
Transit Services	-	-	-	-	-	-	2,050,132	2,050,132
Highway and Streets	-	-	-	-	-	-	3,938,426	3,938,426
Courts	-	-	-	-	-	-	548,403	548,403
Grant and Contributor Purposes	-	-	-	-	2,218,214	-	33,274	2,251,488
Public Safety	248,072	-	11,573,467	-	-	-	-	11,821,539
Debt Service	-	-	-	-	-	-	8,656,344	8,656,344
Capital Projects	-	-	-	6,693,452	-	18,252,579	-	24,946,031
Water, Sewer, Streets and Transportation	-	7,781,195	-	-	-	-	1,090,941	8,872,136
Crime Victim Advocacy	-	-	-	-	-	-	337,224	337,224
Committed to:								
Budgetary Stabilization	21,752,584	-	-	-	-	-	-	21,752,584
Crime Victim Advocacy	-	-	-	-	-	-	112,410	112,410
Assigned to:								
Vehicle Replacement	-	-	-	-	-	-	11,275,728	11,275,728
Equipment Replacement	-	-	-	-	-	-	2,183,868	2,183,868
Capital Projects	-	-	-	5,966,802	-	8,671,065	-	14,637,867
Grant and Contributor Purposes	-	-	-	-	-	-	115,567	115,567
Other Purposes	-	-	-	-	-	-	-	-
Unassigned	36,695,305	-	-	-	-	-	-	36,695,305
Total Fund Balances	<u>\$ 59,341,181</u>	<u>\$ 7,781,195</u>	<u>\$ 11,623,220</u>	<u>\$ 12,660,254</u>	<u>\$ 2,218,723</u>	<u>\$ 26,923,644</u>	<u>\$ 31,077,468</u>	<u>\$ 151,625,685</u>

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 12 CONTINGENCIES, COMMITMENTS AND OTHER CLAIMS

Litigation. The City is in litigation arising in the ordinary course of its operations. The City believes that the liability, if any, in connection with these matters will not have a material adverse effect on the City's financial position, changes in financial position, or liquidity.

Federal and State Grants. The City received grants from both the federal and state governments during the year ended June 30, 2020, and some grants have been audited as of June 30, 2020. The City expects no material disallowance of expenditures.

Contractual Commitments. The City had major contractual commitments related to various capital projects at June 30, 2020. As of June 30, 2020, the City had spent \$13,110,687 on these projects and had remaining contractual commitments with contractors of \$23,747,875. These projects are being financed from development fees, bond proceeds, intergovernmental revenues, operating and capital grants, and general operating fund balances. The project categories and remaining commitments at June 30, 2020 are as follows:

	<u>Balance</u>
General Fund Capital Projects	\$ 340,314
Grants-in-Aid Capital Projects	887
Street Construction and Improvements	486,919
Police Development	1,283,812
Park Enhancements and Improvements	217,181
One-time Capital Projects	1,277,596
Streets Development Impact Fee Projects	76,282
General Obligation Bond Construction & Improvements	11,030,084
Pro Bond Construction & Improvements	7,282,779
Sewer Construction and Improvements	580,987
Water System Construction and Improvements	421,979
Vehicle Replacements	749,054
Total	<u><u>\$ 23,747,875</u></u>

Contingency. The spread of novel strain of coronavirus (COVID-19) in the first and second quarter of 2020 has caused significant volatility in U.S. markets. There is significant uncertainty around the breadth and duration of business disruptions related to COVID-19, as well as its impact on the U.S. economy. The extent of the impact of COVID-19 on the City's operational and financial performance will depend on certain developments, including the duration and spread of the outbreak, and the impact on residents, employees and vendors, all of which are uncertain and cannot be determined at this time.

CITY OF AVONDALE, ARIZONA
NOTES TO BASIC FINANCIAL STATEMENTS
JUNE 30, 2020

NOTE 13 OPERATING LEASES

The City jointly operates and funds the Southwest Family Advocacy Center (SWFAC) with the Avondale, Buckeye and Goodyear Police Departments and the Maricopa County Sheriff's Office. The City leases SWFAC office space under the provisions of a long-term lease agreement classified as an operating lease for accounting purposes. Rental expenditures under the terms of the operating lease were \$387,792 for the year ended June 30, 2020. The following future minimum payments were required under the operating lease at June 30, 2020:

<u>Year Ending June 30,</u>	<u>Amount</u>
2021	\$ 406,932
2022	406,932
2023	426,084
2024	426,084
2025	445,236
2026	445,236
Total	<u>\$ 2,556,504</u>

NOTE 14 JOINT VENTURES

The City participates in the Regional Wireless Cooperative (RWC), an Arizona joint venture, multi-jurisdictional organization formed in 2008 to oversee the construction, operation, and maintenance of a regional communications network. The regional communications network was built to seamlessly serve the interoperable communication needs of first responders and other municipal radio users in and around the Phoenix Metropolitan Region. All members share ongoing financial responsibilities based on their relative size, which is measured by the number of subscriber units (radios) on the network. Currently, the City of Phoenix is responsible for the day-to-day operations and maintenance of the network, as well as the management of the RWC's organization and finances.

The City records its share of equity in the joint venture in the government-wide financial statements. The City's equity balance as of June 30, 2020, was \$591,371, or 0.86% of the RWC's total net position. The RWC Comprehensive Annual Financial Report is available from the Regional Wireless Cooperative, 200 West Washington Street, 12th Floor, Phoenix, Arizona, 85003.



OTHER REQUIRED SUPPLEMENTARY INFORMATION

CITY OF AVONDALE, ARIZONA
SCHEDULE OF THE CITY'S PROPORTIONATE SHARE OF THE NET PENSION LIABILITY —
COST-SHARING PLANS
JUNE 30, 2020

ASRS	Reporting Fiscal Year (Measurement Date)						2014 through 2009
	2020 (2019)	2019 (2018)	2018 (2017)	2017 (2016)	2016 (2015)	2015 (2014)	
City's Proportion of the Net Pension Liability	0.230600%	0.221180%	0.210820%	0.209877%	0.203704%	0.200048%	Information not available
City's Proportionate Share of the Net Pension Liability	\$ 33,554,983	\$ 30,846,826	\$ 32,841,652	\$ 33,876,740	\$ 31,729,753	\$ 29,600,287	
City's Covered Payroll	\$ 24,271,500	\$ 22,151,275	\$ 20,721,364	\$ 19,651,484	\$ 18,779,494	\$ 18,032,916	
City's Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	138.25%	139.26 %	158.49 %	172.39 %	168.96 %	164.69 %	
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	73.24 %	73.40 %	69.92 %	67.06 %	68.35 %	69.49 %	

See accompanying Notes to Pension Plan Schedules.

CITY OF AVONDALE, ARIZONA
SCHEDULE OF CHANGES IN THE CITY'S NET PENSION LIABILITY AND RELATED RATIOS —
AGENT PLANS
JUNE 30, 2020

PSPRS Police	Reporting Fiscal Year (Measurement Date)						2014 through 2009
	2020 (2019)	2019 (2018)	2018 (2017)	2017 (2016)	2016 (2015)	2015 (2014)	
Total Pension Liability							
Service Cost	\$ 2,082,977	\$ 1,946,106	\$ 1,976,541	\$ 1,525,046	\$ 1,415,787	\$ 1,331,141	Information not available
Interest on the Total Pension Liability	3,552,659	3,186,313	2,821,376	2,457,622	2,231,813	1,846,508	
Changes of Benefit Terms	-	-	381,272	2,654,715	-	295,006	
Differences Between Expected and Actual Experience in the Measurement of the Pension Liability	(207,819)	326,924	966,425	(894,754)	367,549	380,206	
Changes of Assumptions or Other Inputs	1,724,828	-	771,117	1,538,022		2,093,103	
Benefit Payments, Including Refunds of Employee Contributions	(1,443,623)	(1,793,686)	(1,129,451)	(1,261,226)	(1,125,230)	(1,034,663)	
Net Change in Total Pension Liability	5,709,022	3,665,657	5,787,280	6,019,425	2,889,919	4,911,301	
Total Pension Liability—Beginning	46,647,737	42,982,080	37,194,800	31,175,375	28,285,456	23,374,155	
Total Pension Liability—Ending (a)	<u>\$ 52,356,759</u>	<u>\$ 46,647,737</u>	<u>\$ 42,982,080</u>	<u>\$ 37,194,800</u>	<u>\$ 31,175,375</u>	<u>\$ 28,285,456</u>	
Plan Fiduciary Net Position							
Contributions—Employer	\$ 2,793,143	\$ 2,451,734	\$ 1,823,389	\$ 1,683,672	\$ 1,318,663	\$ 1,232,188	
Contributions—Employee	802,184	825,215	976,415	932,789	861,574	743,958	
Net Investment Income	1,545,862	1,759,091	2,570,277	118,764	689,299	2,121,707	
Benefit Payments, Including Refunds of Employee Contributions	(1,443,623)	(1,793,686)	(1,129,451)	(1,261,226)	(1,125,230)	(1,034,663)	
Hall/Parker Settlement	-	(981,953)	-	-	-	-	
Administrative Expense	(27,850)	(27,473)	(23,143)	(17,489)	(17,204)	(3,445)	
Other Changes	(16,823)	(5,262)	21,812	(380,099)	1,164	(472,452)	
Net Change in Plan Fiduciary Net Position	3,652,893	2,227,666	4,239,299	1,076,411	1,728,266	2,587,293	
Plan Fiduciary Net Position—Beginning	27,513,750	25,286,084	21,046,785	19,970,374	18,242,108	15,654,815	
Plan Fiduciary Net Position—Ending (b)	<u>\$ 31,166,643</u>	<u>\$ 27,513,750</u>	<u>\$ 25,286,084</u>	<u>\$ 21,046,785</u>	<u>\$ 19,970,374</u>	<u>\$ 18,242,108</u>	
City's Net Pension Liability—Ending (a) – (b)	<u>\$ 21,190,116</u>	<u>\$ 19,133,987</u>	<u>\$ 17,695,996</u>	<u>\$ 16,148,015</u>	<u>\$ 11,205,001</u>	<u>\$ 10,043,348</u>	
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	59.53%	58.98%	58.83%	56.59%	64.06%	64.49%	
Covered Payroll	\$ 8,403,967	\$ 8,742,614	\$ 8,903,336	\$ 8,099,025	\$ 7,704,528	\$ 7,503,472	
City's Net Pension Liability as a Percentage of Covered Payroll	252.14%	218.86%	198.76%	199.38%	145.43%	133.85%	

See accompanying Notes to Pension Plan Schedules.

CITY OF AVONDALE, ARIZONA
SCHEDULE OF CHANGES IN THE CITY'S NET PENSION LIABILITY AND RELATED RATIOS —
AGENT PLANS (CONTINUED)
JUNE 30, 2020

PSPRS Fire	Reporting Fiscal Year (Measurement Date)						2014 through 2009
	2020 (2019)	2019 (2018)	2018 (2017)	2017 (2016)	2016 (2015)	2015 (2014)	
Total Pension Liability							
Service Cost	\$ 1,441,304	\$ 1,418,344	\$ 1,296,498	\$ 1,059,427	\$ 980,484	\$ 837,218	Information not available
Interest on the Total Pension Liability	2,606,870	2,309,854	2,098,727	1,702,937	1,544,325	1,312,216	
Changes of Benefit Terms	-	-	170,572	2,475,378	-	106,903	
Differences Between Expected and Actual Experience in the Measurement of the Pension Liability	(392,200)	574,991	(55,836)	216,529	(131,687)	50,110	
Changes of Assumptions or Other Inputs	841,106	-	303,190	1,109,853	-	932,687	
Benefit Payments, Including Refunds of Employee Contributions	(1,074,604)	(968,557)	(317,165)	(469,042)	(355,057)	(352,875)	
Net Change in Total Pension Liability	3,422,476	3,334,632	3,495,986	6,095,082	2,038,065	2,886,259	
Total Pension Liability—Beginning	34,323,976	30,989,344	27,493,358	21,398,276	19,360,211	16,473,952	
Total Pension Liability—Ending (a)	<u>\$ 37,746,452</u>	<u>\$ 34,323,976</u>	<u>\$ 30,989,344</u>	<u>\$ 27,493,358</u>	<u>\$ 21,398,276</u>	<u>\$ 19,360,211</u>	
Plan Fiduciary Net Position							
Contributions—Employer	\$ 1,584,692	\$ 1,682,744	\$ 955,224	\$ 940,588	\$ 851,284	\$ 769,757	
Contributions—Employee	497,947	512,464	642,054	729,183	597,484	506,808	
Net Investment Income	1,315,049	1,520,488	2,229,110	102,392	585,392	1,788,115	
Benefit Payments, Including Refunds of Employee Contributions	(1,074,604)	(968,557)	(317,165)	(469,042)	(355,057)	(352,875)	
Hall/Parker Settlement	-	(824,447)					
Administrative Expense	(23,850)	(23,842)	(20,124)	(15,135)	(14,673)	(2,904)	
Other Changes	(10,545)	250	2,937	(84,529)	(8,867)	(254,889)	
Net Change in Plan Fiduciary Net Position	2,288,689	1,899,100	3,492,036	1,203,457	1,655,563	2,454,012	
Plan Fiduciary Net Position—Beginning	23,760,847	21,861,747	18,369,711	17,166,254	15,510,691	13,056,679	
Plan Fiduciary Net Position—Ending (b)	<u>\$ 26,049,536</u>	<u>\$ 23,760,847</u>	<u>\$ 21,861,747</u>	<u>\$ 18,369,711</u>	<u>\$ 17,166,254</u>	<u>\$ 15,510,691</u>	
City's Net Pension Liability—Ending (a) – (b)	<u>\$ 11,696,916</u>	<u>\$ 10,563,129</u>	<u>\$ 9,127,597</u>	<u>\$ 9,123,647</u>	<u>\$ 4,232,022</u>	<u>\$ 3,849,520</u>	
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	69.01%	69.23%	70.55%	66.82%	80.22%	80.12%	
Covered Payroll	\$ 5,733,847	\$ 6,012,478	\$ 5,659,091	\$ 5,500,657	\$ 5,207,816	\$ 5,123,433	
City's Net Pension Liability as a Percentage of Covered Payroll	204.00%	175.69%	161.29%	165.86%	81.26%	75.14%	

See accompanying Notes to Pension Plan Schedules.

CITY OF AVONDALE, ARIZONA
SCHEDULE OF CITY PENSION CONTRIBUTIONS
JUNE 30, 2020

ASRS

	Reporting Fiscal Year							2013 through 2009
	2020	2019	2018	2017	2016	2015	2014	
Statutorily Required Contribution	\$ 2,922,778	\$ 2,718,912	\$ 2,414,489	\$ 2,233,763	\$ 2,132,186	\$ 2,043,209	\$ 1,929,522	Information not available
City's Contributions in Relation to the Statutorily Required Contribution	2,922,778	2,718,912	2,414,489	2,233,763	2,132,186	2,043,209	1,929,522	
City's Contribution Deficiency (Excess)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
City's Covered Payroll	\$ 25,518,191	\$ 24,271,500	\$ 22,151,275	\$ 20,721,364	\$ 19,651,484	\$ 18,779,494	\$ 18,032,916	
City's Contributions as a Percentage of Covered Payroll	11.45%	11.20 %	10.90 %	10.78 %	10.85 %	10.88 %	10.70 %	

PSPRS Police

	Reporting Fiscal Year							2013 through 2009
	2020	2019	2018	2017	2016	2015	2014	
Statutorily Required Contribution	\$ 2,925,098	\$ 2,832,186	\$ 2,452,912	\$ 1,823,389	\$ 1,683,672	\$ 1,318,663	\$ 1,232,188	Information not available
City's Contributions in Relation to the Statutorily Required Contribution	2,925,098	2,832,186	1,485,625	1,823,389	1,683,672	1,318,663	1,232,188	
City's Contribution Deficiency (Excess)	\$ -	\$ -	\$ 967,287	\$ -	\$ -	\$ -	\$ -	
City's Covered Payroll	\$ 10,439,761	\$ 8,403,967	\$ 8,742,614	\$ 8,903,336	\$ 8,099,025	\$ 7,704,528	\$ 7,503,472	
City's Contributions as a Percentage of Covered Payroll	28.02%	29.97 %	16.99 %	20.48 %	20.79 %	17.12 %	16.42 %	

PSPRS Fire

	Reporting Fiscal Year							2013 through 2009
	2020	2019	2018	2017	2016	2015	2014	
Statutorily Required Contribution	\$ 1,692,750	\$ 1,858,991	\$ 1,391,519	\$ 955,224	\$ 940,588	\$ 851,284	\$ 769,757	Information not available
City's Contributions in Relation to the Statutorily Required Contribution	1,692,750	1,858,991	581,486	955,224	940,588	851,284	769,757	
City's Contribution Deficiency (Excess)	\$ -	\$ -	\$ 810,033	\$ -	\$ -	\$ -	\$ -	
City's Covered Payroll	\$ 6,422,114	\$ 5,733,847	\$ 6,012,478	\$ 5,659,091	\$ 5,500,657	\$ 5,207,816	\$ 5,123,433	
City's Contributions as a Percentage of Covered Payroll	26.36%	29.71 %	9.67 %	16.88 %	17.10 %	16.35 %	15.02 %	

See accompanying Notes to Pension Plan Schedules.

**CITY OF AVONDALE, ARIZONA
NOTES TO PENSION PLAN SCHEDULES
JUNE 30, 2020**

NOTE 1 ACTUARIALLY DETERMINED CONTRIBUTION RATES

Actuarially determined contribution rates are calculated as of June 30 each year, which are 12 months prior to the beginning of the fiscal year in which contributions are reported. The actuarial methods and assumptions used to establish the contribution requirements are as follows:

Actuarial Cost Method	Entry age normal
Amortization Method	PSPRS members with initial membership date before July 1, 2017: Level percent-of-pay, closed PSPRS members with initial membership on or after July 1, 2017: Level dollar closed
Remaining Amortization Period as of the 2018 Actuarial Valuation	PSPRS members with initial membership date before July 1, 2017: 20 years PSPRS members with initial membership on or after July 1, 2017: 10 years
Asset Valuation Method	PSPRS members with initial membership date before July 1, 2017: 7-year smoothed market value; 80%/120% market corridor PSPRS members with initial membership on or after July 1, 2017: five-year smoothed market value; 80%/120% market corridor
Actuarial Assumptions:	
Investment Rate of Return	7.5%, net of investment and administrative expenses.
Projected Salary Increases	3.00%; No explicit price inflation assumption is used in
Projected Salary Increases	this valuation.
Wage Inflation	4.0%
Retirement Age	Experience-based table of rates that is specific to the type of eligibility condition. Last updated for the 2012 2012 valuation pursuant to an experience study of the period July 1, 2006 - June 30, 2011.
Mortality	RP-2000 mortality table projected to 2015 using projection scale AA (adjusted by 105% for both males and females).
Other Information	
Assumed Future Permanent Benefit Increases	The cost-of-living adjustment will be based on the average annual percentage change in the Metropolitan Phoenix-Mesa Consumer Price Index published by the United States Department of Labor, Bureau of Statistics. We have assumed that to be 1.75% for this valuation.

NOTE 2 PENSION PLAN SCHEDULES

Information prior to the measurement date of fiscal year 2014 was not available. Ten years of data will be presented as it becomes available.

SUPPLEMENTARY INFORMATION

CITY OF AVONDALE, ARIZONA
SCHEDULE OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCE —
BUDGET AND ACTUAL — DEVELOPMENT FEES FUND
MAJOR GOVERNMENTAL FUNDS
JUNE 30, 2020

	Budgeted Amounts		Actual	Variance with
	Original	Final	Amounts	Final Budget -
				Positive
				(Negative)
REVENUES				
Licenses and Permits	\$ 702,000	\$ 702,000	\$ 2,427,084	\$ 1,725,084
Investment Income	75,100	75,100	254,658	179,558.00
Contributions	-	-	124,922	124,922.00
Miscellaneous	-	-	343	343.00
Total Revenues	777,100	777,100	2,807,007	2,029,907
EXPENDITURES				
Current:				
Highways and Streets	-	-	2,147,183	(2,147,183)
Health and Welfare	-	-	-	-
Capital Outlay	37,184,977	31,056,950	13,408,927	17,648,023
Total Expenditures	37,184,977	31,056,950	15,556,110	15,500,840
EXCESS (DEFICIENCY) OF REVENUES				
OVER (UNDER) EXPENDITURES	(36,407,877)	(30,279,850)	(12,749,103)	17,530,747
OTHER FINANCING SOURCES (USES)				
Transfers In	24,750,000	24,750,000	24,750,000	-
Transfers Out	(280,100)	(280,100)	(8,619,321)	(8,339,221)
Total Other Financing Sources (Uses)	24,469,900	24,469,900	16,130,679	(8,339,221)
NET CHANGE IN FUND BALANCE	3,381,576	3,381,576	3,381,576	-
Fund Balance - Beginning of Year	9,278,678	9,278,678	9,278,678	-
FUND BALANCE - END OF YEAR	<u>\$ 12,660,254</u>	<u>\$ 12,660,254</u>	<u>\$ 12,660,254</u>	<u>\$ -</u>

CITY OF AVONDALE, ARIZONA
SCHEDULE OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCE —
BUDGET AND ACTUAL — OTHER CAPITAL PROJECTS FUND
MAJOR GOVERNMENTAL FUNDS
JUNE 30, 2020

	Budgeted Amounts		Actual	Variance with
	Original	Final	Amounts	Final Budget -
				Positive
				(Negative)
REVENUES				
Interest Income	\$ -	\$ -	\$ 316,341	\$ 316,341
Miscellaneous	-	-	55,490	55,490
Total Revenues	-	-	371,831	371,831
EXPENDITURES				
Debt Service:				
Issuance Costs	-	-	95,400	95,400
Capital Outlay	1,250,000	3,165,438	13,262,178	(10,096,740)
Total Expenditures	1,250,000	3,165,438	13,357,578	(10,192,140)
EXCESS (DEFICIENCY) OF REVENUES				
OVER (UNDER) EXPENDITURES	(1,250,000)	(3,165,438)	(12,985,747)	(9,820,309)
OTHER FINANCING SOURCES (USES)				
Bonds Issued	-	-	10,096,000	10,096,000
Transfers In	1,150,000	1,150,000	18,775,003	17,625,003
Transfers Out	(2,500,000)	(2,500,000)	(11,786,382)	(9,286,382)
Total Other Financing Sources (Uses)	(1,350,000)	(1,350,000)	17,084,621	18,434,621
NET CHANGE IN FUND BALANCE	(2,600,000)	(4,515,438)	4,098,874	8,614,312
Fund Balance - Beginning of Year	22,824,770	22,824,770	22,824,770	-
FUND BALANCE - END OF YEAR	<u>\$ 20,224,770</u>	<u>\$ 18,309,332</u>	<u>\$ 26,923,644</u>	<u>\$ 8,614,312</u>



NONMAJOR GOVERNMENTAL FUNDS COMBINING FUND STATEMENTS

Special Revenue Funds

Highway User Revenue Fund accounts for excise fuel taxes and other fees and charges relating to the registration and operation of motor vehicles on the public highways of the State. These revenues are distributed to cities and towns based on a formula. A constitutional provision requires that these revenues be used for highway and street purposes.

Local Transportation Assistance Fund accounts for transit grants that provide resources to support public transportation services. This fund also accounts for special distributions of state lottery monies that are restricted for transit-related projects and programs.

Senior Programs Fund accounts for senior services provided to senior citizens within the community. These services are funded mainly by federal and state programs that provide resources to preserve and promote nutrition and health, prevent and reduce the risk of chronic diseases, and to promote and maintain independence and independent living.

Judicial Collection Enhancement Fund accounts for resources required to improve, maintain, and enhance the ability to collect and manage monies assessed or received by the City Court including restitution, child support, fines and civil penalties, as well as to improve court automation projects likely to improve case processing or the administration of justice.

Family Advocacy Center Fund accounts for resources to operate the Southwest Family Advocacy Center which provides services to victims of domestic violence and other crimes. The City jointly funds and administers the Center with the municipalities and police departments of Avondale, Buckeye, Goodyear, and the Maricopa County Sheriff's Office through the County of Maricopa.

Environmental Fees Fund accounts for environment fees collected and spent by the City to administer and enforce environmental programs such as the National Pollutant Discharge Elimination System Program and Particulate Matter Program.

Capital Projects Funds

Vehicle Replacement Fund accounts for reserves set aside for the replacement of city vehicles other than those vehicles used in the City's enterprise activities. A consistent methodology is used to accumulate replacement reserves for operating department vehicle replacement needs. Vehicles are assigned replacement values and estimated useful lives. Operating departments are then charged annual replacement charges such that the replacement reserves are available upon retirement of the vehicles.

Equipment Replacement Fund accounts for reserves set aside for the replacement of city technology equipment other than equipment used in the City's enterprise activities. A consistent methodology is used to accumulate replacement reserves for operating department replacement needs. Equipment is assigned replacement values and estimated useful lives. Operating departments are then charged annual replacement charges such that the replacement reserves are available upon retirement of the equipment.

Debt Service Funds

General Obligation Bonds Fund accounts for the accumulation of resources and payment of principal and interest on the City's general obligation bonds. The principal and interest on general obligation bonds is normally paid with revenues generated from the secondary property tax levy sufficient to make required debt service payments.

Dedicated Sales Tax Revenue Bonds Fund accounts for the accumulation of resources and payment of principal and interest on MDC revenue bonds and pledged revenue refunding obligations issued by the City. The City has pledged the voter-approved 0.5-cent sales tax revenues and general excise taxes to make the required debt services payments.

Other Debt Service Fund accounts for the accumulation of resources and payment of principal and interest on the City's general long-term bond indebtedness not accounted for in the other debt service funds. The City has pledged its general excise taxes to make the required debt service payments.

**CITY OF AVONDALE, ARIZONA
COMBINING BALANCE SHEET —
NONMAJOR GOVERNMENTAL FUNDS
JUNE 30, 2020**

	Special Revenue Funds			
	Highway User Revenue	Local Transportation Assistance	Senior Programs	Judicial Collection Enhancement
ASSETS				
Cash and Cash Equivalents	\$ 1,641,732	\$ 1,845,768	\$ 108,808	\$ 549,471
Investments	2,095,625	-	-	-
Receivables:				
Taxes	-	-	-	-
Accounts	507	6	64,352	-
Interest	9,019	-	-	-
Due from Other Governments	443,597	230,287	-	2,046
Inventories	-	15,244	4,727	-
Prepaid items	443,279	-	-	-
Restricted Cash with Fiscal Agents	-	-	-	-
Total Assets	<u>4,633,759</u>	<u>2,091,305</u>	<u>177,887</u>	<u>551,517</u>
LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND FUND BALANCES				
LIABILITIES				
Accounts Payable	230,988	13,957	8,362	2,601
Accrued Payroll and Employee Benefits	21,066	-	15,957	513
Accrued Liabilities	-	11,972	-	-
Due to Other Funds	-	-	-	-
Total Liabilities	<u>252,054</u>	<u>25,929</u>	<u>24,319</u>	<u>3,114</u>
DEFERRED INFLOWS OF RESOURCES				
Unavailable Revenue - Property Taxes	-	-	-	-
Unavailable Revenue - Other	-	-	-	-
Total Deferred Inflows of Resources	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
FUND BALANCES				
Nonspendable	443,279	15,244	4,727	-
Restricted	3,938,426	2,050,132	33,274	548,403
Committed	-	-	-	-
Assigned	-	-	115,567	-
Total Fund Balances	<u>4,381,705</u>	<u>2,065,376</u>	<u>153,568</u>	<u>548,403</u>
Total Liabilities, Deferred Inflows of Resources, and Fund Balances	<u>\$ 4,633,759</u>	<u>\$ 2,091,305</u>	<u>\$ 177,887</u>	<u>\$ 551,517</u>

(continued on next page)

CITY OF AVONDALE, ARIZONA
COMBINING BALANCE SHEET — (CONTINUED)
NONMAJOR GOVERNMENTAL FUNDS
JUNE 30, 2020

	Special Revenue Funds		Capital Projects Funds	
	Family Advocacy Center	Environmental Fees	Vehicle Replacement	Equipment Replacement
ASSETS				
Cash and Cash Equivalents	\$ 278,339	\$ 1,062,620	\$ 5,724,703	\$ 2,242,093
Investments	-	-	5,560,170	-
Receivables:				
Taxes	-	-	-	-
Accounts	1,416	44,805	21,225	551
Interest	-	-	18,673	-
Due from Other Governments	189,655	-	-	-
Inventories	-	-	-	-
Prepaid items	1,729	2,210	-	267,962
Restricted Cash with Fiscal Agents	-	-	-	-
Total Assets	<u>\$ 471,139</u>	<u>\$ 1,109,635</u>	<u>\$ 11,324,771</u>	<u>\$ 2,510,606</u>
LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND FUND BALANCES				
LIABILITIES				
Accounts Payable	\$ 1,839	\$ 15,213	\$ 49,043	\$ 58,776
Accrued Payroll and Employee Benefits	10,695	1,271	-	-
Accrued Liabilities	-	-	-	-
Due to Other Funds	-	-	-	-
Total Liabilities	<u>12,534</u>	<u>16,484</u>	<u>49,043</u>	<u>58,776</u>
DEFERRED INFLOWS OF RESOURCES				
Unavailable Revenue - Property Taxes	-	-	-	-
Unavailable Revenue - Other	7,242	-	-	-
Total Deferred Inflows of Resources	<u>7,242</u>	<u>-</u>	<u>-</u>	<u>-</u>
FUND BALANCES				
Nonspendable	1,729	2,210	-	267,962
Restricted	337,224	1,090,941	-	-
Committed	112,410	-	-	-
Assigned	-	-	11,275,728	2,183,868
Total Fund Balances	<u>451,363</u>	<u>1,093,151</u>	<u>11,275,728</u>	<u>2,451,830</u>
Total Liabilities, Deferred Inflows of Resources, and Fund Balances	<u>\$ 471,139</u>	<u>\$ 1,109,635</u>	<u>\$ 11,324,771</u>	<u>\$ 2,510,606</u>

Debt Service Funds			
General Obligation Bonds	Dedicated Sales Tax Revenue Bonds	Other Debt Service	Total Nonmajor Governmental Funds
\$ 314,696	\$ -	\$ 1,090,759	\$ 14,858,989
-	-	-	7,655,795
169,335	-	-	169,335
-	-	-	132,862
-	1,571	-	29,263
-	-	-	865,585
-	-	-	19,971
-	-	-	715,180
3,125,443	4,598,330	865,695	8,589,468
<u>\$ 3,609,474</u>	<u>\$ 4,599,901</u>	<u>\$ 1,956,454</u>	<u>\$ 33,036,448</u>
\$ -	\$ -	\$ -	\$ 380,779
-	-	-	49,502
805,443	282,229	134,198	1,233,842
-	167,061	-	167,061
<u>805,443</u>	<u>449,290</u>	<u>134,198</u>	<u>1,831,184</u>
120,554	-	-	120,554
-	-	-	7,242
<u>120,554</u>	<u>-</u>	<u>-</u>	<u>127,796</u>
-	-	-	735,151
2,683,477	4,150,611	1,822,256	16,654,744
-	-	-	112,410
-	-	-	13,575,163
<u>2,683,477</u>	<u>4,150,611</u>	<u>1,822,256</u>	<u>31,077,468</u>
<u>\$ 3,609,474</u>	<u>\$ 4,599,901</u>	<u>\$ 1,956,454</u>	<u>\$ 33,036,448</u>



CITY OF AVONDALE, ARIZONA
COMBINING STATEMENT OF REVENUES, EXPENDITURES, AND
CHANGES IN FUND BALANCES —
NONMAJOR GOVERNMENTAL FUNDS
YEAR ENDED JUNE 30, 2020

	Special Revenue Funds			
	Highway User Revenue	Local Transportation Assistance	Senior Programs	Judicial Collection Enhancement
REVENUES				
Taxes	\$ -	\$ -	\$ -	\$ -
Licenses and Permits	-	-	-	-
Intergovernmental	5,808,343	218,360	414,669	-
Charges for Services	-	-	-	56,684
Interest Income	205,176	29,378	2,654	6,277
Net Change in Fair Value of Investments	-	-	-	-
Contributions	-	-	17,096	-
Miscellaneous	4,135	11,507	101	-
Total Revenue	6,017,654	259,245	434,520	62,961
EXPENDITURES				
Current:				
General Government	-	-	-	82,575
Public Safety	-	-	-	-
Highway and Streets	1,683,953	-	-	-
Health and Welfare	-	-	606,782	-
Economic and Community Development	1,848,150	-	-	-
Culture and Recreation	-	-	-	-
Transportation	-	1,111,568	-	-
Debt Service:				
Principal	149,295	-	-	-
Interest and Other Charges	40,382	-	-	-
Capital Outlay	92,047	-	68,734	-
Total Expenditures	3,813,827	1,111,568	675,516	82,575
EXCESS (DEFICIENCY) OF REVENUES OVER (UNDER) EXPENDITURES	2,203,827	(852,323)	(240,996)	(19,614)
OTHER FINANCING SOURCES (USES)				
Sale of Capital Assets	-	-	-	-
Transfers In	-	1,282,160	386,020	-
Transfers Out	(5,451,340)	-	(24,730)	-
Total Other Financing Sources (Uses)	(5,451,340)	1,282,160	361,290	-
NET CHANGE IN FUND BALANCES	(3,247,513)	429,837	120,294	(19,614)
Fund Balance - Beginning of Year	7,629,218	1,635,539	33,274	568,017
FUND BALANCES - END OF YEAR	\$ 4,381,705	\$ 2,065,376	\$ 153,568	\$ 548,403

(continued on next page)

CITY OF AVONDALE, ARIZONA
COMBINING STATEMENT OF REVENUES, EXPENDITURES, AND
CHANGES IN FUND BALANCES —
NONMAJOR GOVERNMENTAL FUNDS
YEAR ENDED JUNE 30, 2020

	Special Revenue Funds		Capital Projects Funds	
	Family Advocacy Center	Environmental Fees	Vehicle Replacement	Equipment Replacement
REVENUES				
Taxes	\$ -	\$ -	\$ -	\$ -
Licenses and Permits	-	284,923	-	-
Intergovernmental	953,447	-	-	-
Charges for Services	-	-	-	-
Interest Income	2,197	7,446	201,044	30,680
Net Change in Fair Value of Investments	-	-	141,404	-
Contributions	-	-	-	-
Miscellaneous	-	52	-	551
Total Revenue	955,644	292,421	342,448	31,231
EXPENDITURES				
Current:				
General Government	-	-	-	540,398
Public Safety	1,172,502	-	-	-
Highway and Streets	-	-	-	-
Health and Welfare	-	141,575	-	-
Economic and Community Development	13,187	8,000	-	-
Transportation	-	-	-	-
Debt Service:				
Principal	-	-	-	-
Interest and Other Charges	-	-	-	-
Capital Outlay	-	9,378	472,554	587,751
Total Expenditures	1,185,689	158,953	472,554	1,128,149
EXCESS (DEFICIENCY) OF REVENUES OVER (UNDER) EXPENDITURES	(230,045)	133,468	(130,106)	(1,096,918)
OTHER FINANCING SOURCES (USES)				
Sale of Capital Assets	-	-	133,400	-
Transfers In	348,910	-	2,387,290	2,121,465
Transfers Out	(40,920)	(1,060)	-	-
Total Other Financing Sources (Uses)	307,990	(1,060)	2,520,690	2,121,465
NET CHANGE IN FUND BALANCES	77,945	132,408	2,390,584	1,024,547
Fund Balance - Beginning of Year	373,418	960,743	8,885,144	1,427,283
FUND BALANCES - END OF YEAR	\$ 451,363	\$ 1,093,151	\$ 11,275,728	\$ 2,451,830

Debt Service Funds

General Obligation Bonds	Dedicated Sales Tax Revenue Bonds	Other Debt Service	Total Nonmajor Governmental Funds
\$ 4,168,579	\$ -	\$ -	\$ 4,168,579
-	-	-	284,923
-	-	-	7,394,819
-	-	-	56,684
26,016	48,969	10,241	570,078
-	-	-	141,404
-	-	-	17,096
-	-	-	16,346
<u>4,194,595</u>	<u>48,969</u>	<u>10,241</u>	<u>12,649,929</u>
-	-	-	622,973
-	-	-	1,172,502
-	-	-	1,683,953
-	-	-	748,357
-	-	-	1,869,337
-	-	-	1,111,568
2,245,000	4,966,268	228,360	7,588,923
1,612,111	568,288	252,611	2,473,392
-	-	-	1,230,464
<u>3,857,111</u>	<u>5,534,556</u>	<u>480,971</u>	<u>18,501,469</u>
337,484	(5,485,587)	(470,730)	(5,851,540)
-	-	-	133,400
-	5,662,540	766,025	12,954,410
-	-	-	(5,518,050)
<u>-</u>	<u>5,662,540</u>	<u>766,025</u>	<u>7,569,760</u>
337,484	176,953	295,295	1,718,220
<u>2,345,993</u>	<u>3,973,658</u>	<u>1,526,961</u>	<u>29,359,248</u>
<u>\$ 2,683,477</u>	<u>\$ 4,150,611</u>	<u>\$ 1,822,256</u>	<u>\$ 31,077,468</u>



CITY OF AVONDALE, ARIZONA
SCHEDULE OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCE —
BUDGET AND ACTUAL —
HIGHWAY USER REVENUE FUND
YEAR ENDED JUNE 30, 2020

	Budgeted Amounts		Actual	Variance with
	Original	Final	Amounts	Final Budget - Positive (Negative)
REVENUES				
Intergovernmental	\$ 6,076,000	\$ 6,076,000	\$ 5,808,343	\$ (267,657)
Investment Income	80,000	80,000	205,176	125,176
Miscellaneous	-	-	4,135	4,135
Total Revenues	6,156,000	6,156,000	6,017,654	(138,346)
EXPENDITURES				
Current:				
Highways and Streets	1,900,665	1,898,294	1,683,953	214,341
Economic and Community Development	2,762,535	2,764,906	1,848,150	916,756
Debt Service:				
Principal	149,300	149,300	149,295	5
Interest and Other Charges	40,380	40,380	40,382	(2)
Capital Outlay	-	-	92,047	(92,047)
Total Expenditures	4,852,880	4,852,880	3,813,827	1,039,053
EXCESS (DEFICIENCY) OF REVENUES OVER (UNDER) EXPENDITURES	1,303,120	1,303,120	2,203,827	900,707
OTHER FINANCING SOURCES (USES)				
Transfers out	(5,451,340)	(5,451,340)	(5,451,340)	-
NET CHANGE IN FUND BALANCE	(4,148,220)	(4,148,220)	(3,247,513)	900,707
Fund Balance - Beginning of Year	7,629,218	7,629,218	7,629,218	-
FUND BALANCE - END OF YEAR	<u>\$ 3,480,998</u>	<u>\$ 3,480,998</u>	<u>\$ 4,381,705</u>	<u>\$ 900,707</u>

CITY OF AVONDALE, ARIZONA
SCHEDULE OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCE —
BUDGET AND ACTUAL —
LOCAL TRANSPORTATION ASSISTANCE FUND
YEAR ENDED JUNE 30, 2020

	Budgeted Amounts		Actual	Variance with
	Original	Final	Amounts	Final Budget -
				Positive
				(Negative)
REVENUES				
Intergovernmental	\$ 230,000	\$ 230,000	\$ 218,360	\$ (11,640)
Interest Income	-	-	29,378	29,378
Miscellaneous	-	-	11,507	11,507
Total Revenues	230,000	230,000	259,245	29,245
EXPENDITURES				
Current:				
Transportation	1,474,120	1,449,120	1,111,568	337,552
EXCESS (DEFICIENCY) OF REVENUES				
OVER (UNDER) EXPENDITURES	(1,244,120)	(1,219,120)	(852,323)	366,797
OTHER FINANCING SUORCES (USES)				
Transfers In	1,282,160	1,282,160	1,282,160	-
NET CHANGE IN FUND BALANCE	38,040	63,040	429,837	366,797
Fund Balance - Beginning of Year	1,635,539	1,635,539	1,635,539	-
FUND BALANCE - END OF YEAR	<u>\$ 1,673,579</u>	<u>\$ 1,698,579</u>	<u>\$ 2,065,376</u>	<u>\$ 366,797</u>

CITY OF AVONDALE, ARIZONA
SCHEDULE OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCE —
BUDGET AND ACTUAL —
SENIOR PROGRAMS FUND
YEAR ENDED JUNE 30, 2020

	Budgeted Amounts		Actual	Variance with
	Original	Final	Amounts	Final Budget -
				Positive
				(Negative)
REVENUES				
Intergovernmental	\$ 345,000	\$ 363,725	\$ 414,669	\$ 50,944
Interest Income	-	-	2,654	2,654
Contributions	16,000	19,290	17,096	(2,194)
Miscellaneous	-	-	101	101
Total Revenues	361,000	383,015	434,520	51,505
EXPENDITURES				
Current:				
Health and Welfare	657,925	629,208	606,782	22,426
Capital Outlay	-	14,490.00	68,734	(54,244)
Total Expenditures	657,925	629,208	675,516	(31,818)
EXCESS (DEFICIENCY) OF REVENUES				
OVER (UNDER) EXPENDITURES	(296,925)	(246,193)	(240,996)	5,197
OTHER FINANCING SOURCES (USES)				
Transfers In	386,020	274,088	386,020	111,932
Transfers Out	(24,730)	(23,790)	(24,730)	(940)
Total Other Financing Sources (Uses)	361,290	250,298	361,290	110,992
NET CHANGE IN FUND BALANCE	64,365	4,105	120,294	116,189
Fund Balance - Beginning of Year	33,274	33,274	33,274	-
FUND BALANCE - END OF YEAR	<u>\$ 97,639</u>	<u>\$ 37,379</u>	<u>\$ 153,568</u>	<u>\$ 116,189</u>

CITY OF AVONDALE, ARIZONA
SCHEDULE OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCE —
BUDGET AND ACTUAL —
JUDICIAL COLLECTION ENHANCEMENT FUND
YEAR ENDED JUNE 30, 2020

	Budgeted Amounts		Actual	Variance with
	Original	Final	Amounts	Final Budget -
				Positive
				(Negative)
REVENUES				
Charges for Services	\$ 70,000	\$ 70,000	\$ 56,684	\$ (13,316)
Interest Income	-	-	6,277	6,277
Total Revenues	70,000	70,000	62,961	(7,039)
EXPENDITURES				
Current:				
General Government	83,350	109,850	82,575	27,275
NET CHANGE IN FUND BALANCE	(13,350)	(39,850)	(19,614)	(34,314)
Fund Balance - Beginning of Year	568,017	568,017	568,017	-
FUND BALANCE - END OF YEAR	<u>\$ 554,667</u>	<u>\$ 528,167</u>	<u>\$ 548,403</u>	<u>\$ 20,236</u>

CITY OF AVONDALE, ARIZONA
SCHEDULE OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCE —
BUDGET AND ACTUAL —
FAMILY ADVOCACY CENTER FUND
YEAR ENDED JUNE 30, 2020

	Budgeted Amounts		Actual	Variance with
	Original	Final	Amounts	Final Budget -
				Positive
				(Negative)
REVENUES				
Intergovernmental	\$ 1,220,480	\$ 1,356,162	\$ 953,447	\$ (402,715)
Interest Income	-	-	2,197	2,197
Total Revenues	1,220,480	1,356,162	955,644	(400,518)
EXPENDITURES				
Current:				
Public Safety	1,204,510	1,553,153	1,172,502	380,651
Economic and Community Development	15,380	81,479	13,187	68,292
Capital Outlay	52,300	52,300	-	52,300
Total Expenditures	1,272,190	1,686,932	1,185,689	501,243
EXCESS (DEFICIENCY) OF REVENUES				
OVER (UNDER) EXPENDITURES	(51,710)	(330,770)	(230,045)	100,725
OTHER FINANCING SOURCES (USES)				
Transfers In	348,910	348,910	348,910	-
Transfers Out	(40,920)	(40,920)	(40,920)	-
Total Other Financing Sources (Uses)	307,990	307,990	307,990	-
NET CHANGE IN FUND BALANCE	256,280	(22,780)	77,945	100,725
Fund Balance - Beginning of Year	373,418	373,418	373,418	-
FUND BALANCE - END OF YEAR	<u>\$ 629,698</u>	<u>\$ 350,638</u>	<u>\$ 451,363</u>	<u>\$ 100,725</u>

CITY OF AVONDALE, ARIZONA
SCHEDULE OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCE —
BUDGET AND ACTUAL —
ENVIRONMENTAL FEES FUND
YEAR ENDED JUNE 30, 2020

	Budgeted Amounts		Actual	Variance with
	Original	Final	Amounts	Final Budget -
				Positive
				(Negative)
REVENUES				
Licenses and Permits	\$ 260,000	\$ 260,000	\$ 284,923	\$ 24,923
Interest Income	-	-	7,446	7,446
Miscellaneous	-	-	52	52
Total Revenues	260,000	260,000	292,421	32,421
EXPENDITURES				
Current:				
Health and Welfare	197,110	182,610	141,575	41,035
Economic and Community Development	14,000	14,000	8,000	6,000
Capital Outlay	-	14,000	9,378	4,622
Total Expenditures	211,110	210,610	158,953	51,657
EXCESS (DEFICIENCY) OF REVENUES				
OVER (UNDER) EXPENDITURES	48,890	49,390	133,468	84,078
Other Financing Sources (Uses)				
Transfers Out	(1,060)	(1,060)	(1,060)	-
NET CHANGE IN FUND BALANCE	47,830	48,330	132,408	84,078
Fund Balance - Beginning of Year	960,743	960,743	960,743	-
FUND BALANCE - END OF YEAR	<u>\$ 1,008,573</u>	<u>\$ 1,009,073</u>	<u>\$ 1,093,151</u>	<u>\$ 84,078</u>

CITY OF AVONDALE, ARIZONA
SCHEDULE OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCE —
BUDGET AND ACTUAL —
VEHICLE REPLACEMENT FUND
YEAR ENDED JUNE 30, 2020

	Budgeted Amounts		Actual	Variance with
	Original	Final	Amounts	Final Budget - Positive (Negative)
REVENUES				
Interest Income	\$ 100,000	\$ 100,000	\$ 201,044	\$ 101,044
Net Change in Fair Value of Investment	-	-	141,404	141,404
Total Revenues	100,000	100,000	342,448	242,448
EXPENDITURES				
Capital Outlay	2,564,005	2,564,005	472,554	2,091,451
EXCESS (DEFICIENCY) OF REVENUES OVER (UNDER) EXPENDITURES	(2,464,005)	(2,464,005)	(130,106)	2,333,899
OTHER FINANCING SOURCES (USES)				
Sale of Capital Assets	62,320	62,320	133,400	71,080
Transfers In	2,387,290	2,387,290	2,387,290	-
Total Other Financing Sources (Uses)	2,449,610	2,449,610	2,520,690	71,080
NET CHANGE IN FUND BALANCE	(14,395)	(14,395)	2,390,584	2,404,979
Fund Balance - Beginning of Year	8,885,144	8,885,144	8,885,144	-
FUND BALANCE - END OF YEAR	<u>\$ 8,870,749</u>	<u>\$ 8,870,749</u>	<u>\$ 11,275,728</u>	<u>\$ 2,404,979</u>

CITY OF AVONDALE, ARIZONA
SCHEDULE OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCE —
BUDGET AND ACTUAL —
EQUIPMENT REPLACEMENT FUND
YEAR ENDED JUNE 30, 2020

	Budgeted Amounts		Actual	Variance with
	Original	Final	Amounts	Final Budget -
				Positive
				(Negative)
REVENUES				
Interest Income	\$ 6,000	\$ 6,000	\$ 30,680	\$ 24,680
Miscellaneous	-	-	551	551
Total Revenues	6,000	6,000	31,231	24,680
EXPENDITURES				
Current:				
General Government	250,850	599,250	540,398	58,852
Capital Outlay	754,000	754,000	587,751	166,249
Total Expenditures	1,004,850	1,353,250	1,128,149	225,101
EXCESS (DEFICIENCY) OF REVENUES OVER (UNDER) EXPENDITURES	(998,850)	(1,347,250)	(1,096,918)	250,332
OTHER FINANCING SOURCES (USES)				
Transfers In	927,510	927,510	2,121,465	1,193,955
NET CHANGE IN FUND BALANCE	(71,340)	(419,740)	1,024,547	1,444,287
Fund Balance - Beginning of Year	1,427,283	1,427,283	1,427,283	-
FUND BALANCE - END OF YEAR	<u>\$ 1,355,943</u>	<u>\$ 1,007,543</u>	<u>\$ 2,451,830</u>	<u>\$ 1,444,287</u>

CITY OF AVONDALE, ARIZONA
SCHEDULE OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCE —
BUDGET AND ACTUAL —
GENERAL OBLIGATION BONDS FUND
YEAR ENDED JUNE 30, 2020

	Budgeted Amounts		Actual	Variance with
	Original	Final	Amounts	Final Budget -
				Positive
				(Negative)
REVENUES				
Taxes	\$ 4,141,443	\$ 4,141,443	\$ 4,168,579	\$ 27,136
Investment Income	30,000	30,000	26,016	(3,984)
Total Revenues	4,171,443	4,171,443	4,194,595	23,152
EXPENDITURES				
Debt Service:				
Principal	2,310,000	2,310,000	2,245,000	65,000
Interest and Other Charges	1,658,985	1,658,985	1,612,111	46,874
Total Expenditures	3,968,985	3,968,985	3,857,111	111,874
EXCESS (DEFICIENCY) OF REVENUES				
OVER (UNDER) EXPENDITURES	202,458	202,458	337,484	135,026
Fund Balance - Beginning of Year	2,345,993	2,345,993	2,345,993	-
FUND BALANCE - END OF YEAR	<u>\$ 2,548,451</u>	<u>\$ 2,548,451</u>	<u>\$ 2,683,477</u>	<u>\$ 135,026</u>

CITY OF AVONDALE, ARIZONA
SCHEDULE OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCE —
BUDGET AND ACTUAL —
DEDICATED SALES TAX REVENUE BONDS FUND
YEAR ENDED JUNE 30, 2020

	Budgeted Amounts		Actual	Variance with
	Original	Final	Amounts	Final Budget - Positive (Negative)
REVENUES				
Investment Income	\$ 32,000	\$ 32,000	\$ 48,969	\$ 16,969
EXPENDITURES				
Debt Service:				
Principal	4,615,000	4,615,000	4,966,268	(351,268)
Interest and Other Charges	617,450	617,450	568,288	49,162
Total Expenditures	<u>5,232,450</u>	<u>5,232,450</u>	<u>5,534,556</u>	<u>(302,106)</u>
EXCESS (DEFICIENCY) OF REVENUES OVER (UNDER) EXPENDITURES	(5,200,450)	(5,200,450)	(5,485,587)	(285,137)
OTHER FINANCING SOURCES (USES)				
Transfers In	<u>5,662,540</u>	<u>5,662,540</u>	<u>5,662,540</u>	<u>-</u>
NET CHANGE IN FUND BALANCE	462,090	462,090	176,953	(285,137)
Fund Balance - Beginning of Year	<u>3,973,658</u>	<u>3,973,658</u>	<u>3,973,658</u>	<u>-</u>
FUND BALANCE - END OF YEAR	<u>\$ 4,435,748</u>	<u>\$ 4,435,748</u>	<u>\$ 4,150,611</u>	<u>\$ (285,137)</u>

CITY OF AVONDALE, ARIZONA
SCHEDULE OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCE —
BUDGET AND ACTUAL —
OTHER DEBT SERVICE FUND
YEAR ENDED JUNE 30, 2020

	Budgeted Amounts		Actual	Variance with
	Original	Final	Amounts	Final Budget - Positive (Negative)
REVENUES				
Interest Income	\$ -	\$ -	\$ 10,241	\$ 10,241
EXPENDITURES				
Debt Service				
Principal	228,400	228,400	228,360	40
Interest and Other Charges	337,975	337,975	252,611	85,364
Total Expenditures	566,375	566,375	480,971	85,404
EXCESS (DEFICIENCY) OF REVENUES OVER (UNDER) EXPENDITURES	(566,375)	(566,375)	(470,730)	95,645
OTHER FINANCING SOURCES (USES)				
Transfers In	765,425	765,425	766,025	600
NET CHANGE IN FUND BALANCE	199,050	199,050	295,295	96,245
Fund Balance - Beginning of Year	1,526,961	1,526,961	1,526,961	-
FUND BALANCE - END OF YEAR	<u>\$ 1,726,011</u>	<u>\$ 1,726,011</u>	<u>\$ 1,822,256</u>	<u>\$ 96,245</u>



INTERNAL SERVICE FUNDS COMBINING FINANCIAL STATEMENTS

Risk Management Fund accounts for the City's property and liability self-insurance program. Coverage is provided using a combination of self-insurance and private carrier insurance. This fund provides liability insurance coverage for claims over the self-insurance limit; claims under the limit are charged directly to the fund. The fund charges city departments a premium. The premiums are intended to cover current claims, administration, and to establish and maintain a reserve to cover the risk that is being transferred to the fund.

Worker's Compensation Fund accounts for the City's self-insured worker's compensation program. The fund charges city departments a premium. The premiums are intended to cover current claims, administration, excess insurance coverage, and to establish and maintain a reserve to cover the risk that is being transferred to the fund.

Printing Services Fund accounts for the City's internal copier and printing fees with costs supported by billing user departments for print and copy services provided. The City has closed out the fund in FY20. The remaining fund balance has been transferred to the Equipment Replacement Fund.

Fleet Management Fund accounts for the operation, maintenance, and repair of city-owned fleet vehicles and equipment with costs supported by billing user departments for administrative costs, labor, parts, and fuel charges when fleet services are provided.

CITY OF AVONDALE, ARIZONA
COMBINING STATEMENT OF NET POSITION —
INTERNAL SERVICE FUNDS
JUNE 30, 2020

	Governmental Activities - Internal Service Funds				
	Risk Management	Workers' Compensation	Printing Services	Fleet Management	Total
ASSETS					
Current Assets:					
Cash and Cash Equivalents	\$ 2,397,955	\$ 3,008,995	\$ -	\$ -	\$ 5,406,950
Receivables	211	26	-	386	623
Interest Receivable	10,466	-	-	-	10,466
Due from Other Funds	359,043	-	-	-	359,043
Inventories	-	-	-	216,317	216,317
Prepaid Items	3,002	-	-	180	3,182
Total Current Assets	2,770,677	3,009,021	-	216,883	5,996,581
Noncurrent Assets:					
Investments	3,267,363	-	-	-	3,267,363
Net Other Postemployment Benefits Asset					
Capital Assets, Depreciable (Net)	63,845	-	-	130,372	194,217
Total Noncurrent Assets	3,331,208	-	-	130,372	3,461,580
Total Assets	6,101,885	3,009,021	-	347,255	9,458,161
DEFERRED OUTFLOWS OF RESOURCES					
Deferred Outflows Related to Pensions					
Other Postemployment Benefits	22,699	9,939	-	99,125	131,763
LIABILITIES					
Current Liabilities:					
Accounts Payable	26,732	100	-	83,626	110,458
Accrued Payroll and Employee Benefits	1,027	5,513	-	13,412	19,952
Claims Payable	1,338,196	276,326	-	-	1,614,522
Due to Other Funds	-	-	-	359,043	359,043
Compensated Absences	8,647	11,898	-	65,062	85,607
Total Current Liabilities	1,374,602	293,837	-	521,143	2,189,582
Noncurrent Liabilities:					
Claims Payable	556,848	380,870	-	-	937,718
Compensated Absences	2,161	2,975	-	16,266	21,402
Net Pension and Other Postemployment Liability	199,445	10,175	-	661,246	870,866
Total Noncurrent Liabilities	758,454	394,020	-	677,512	1,829,986
Total Liabilities	2,133,056	687,857	-	1,198,655	4,019,568
DEFERRED INFLOWS OF RESOURCES					
Deferred Inflows Related to Pensions and					
Other Postemployment Benefits	18,858	-	-	30,892	49,750
NET POSITION					
Net Investment in Capital Assets	63,845	-	-	130,372	194,217
Unrestricted	3,908,825	2,331,103	-	(913,539)	5,326,389
Total Net Position (Deficit)	\$ 3,972,670	\$ 2,331,103	\$ -	\$ (783,167)	\$ 5,520,606

CITY OF AVONDALE, ARIZONA
COMBINING STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN
FUND NET POSITION —
INTERNAL SERVICE FUNDS
YEAR ENDED JUNE 30, 2020

	Governmental Activities - Internal Service Funds				
	Risk Management	Workers' Compensation	Printing Services	Fleet Management	Total
OPERATING REVENUES					
Charges for Services	\$ 1,731,383	\$ 735,929	\$ -	\$ 2,430,085	\$ 4,897,397
Miscellaneous	79,932	26	-	2,145	82,103
Total Operating Revenues	1,811,315	735,955	-	2,432,230	4,979,500
OPERATING EXPENSES					
Salaries, Wages and Benefits	116,862	142,202	-	759,352	1,018,416
Contractual Services, Materials and Supplies	16,435	82,589	-	1,770,024	1,869,048
Insurance Claims and Expenses	1,429,216	701,082	-	-	2,130,298
Depreciation	22,734	-	-	21,155	43,889
Total Operating Expenses	1,585,247	925,873	-	2,550,531	5,061,651
OPERATING INCOME (LOSS)	226,068	(189,918)	-	(118,301)	(82,151)
NONOPERATING REVENUES					
Interest Income	118,846	-	-	-	118,846
Net Change in Fair Value of Investments	83,718	-	-	-	83,718
Total Nonoperating Revenues	202,564	-	-	-	202,564
INCOME BEFORE TRANSFERS	428,632	(189,918)	-	(118,301)	120,413
Transfers In	-	-	-	5,714	5,714
Transfers Out	(2,230)	(5,714)	(1,193,955)	(16,030)	(1,217,929)
CHANGE IN NET POSITION	426,402	(195,632)	(1,193,955)	(128,617)	(1,091,802)
Net Position (Deficit) - Beginning of Year	3,546,268	2,526,735	1,193,955	(654,550)	6,612,408
NET POSITION (DEFICIT) - END OF YEAR	<u>\$ 3,972,670</u>	<u>\$ 2,331,103</u>	<u>\$ -</u>	<u>\$ (783,167)</u>	<u>\$ 5,520,606</u>

CITY OF AVONDALE, ARIZONA
COMBINING STATEMENT OF CASH FLOWS —
INTERNAL SERVICE FUNDS
YEAR ENDED JUNE 30, 2020

	Governmental Activities - Internal Service Funds				
	Risk Management	Workers' Compensation	Printing Services	Fleet Management	Total
CASH FLOWS FROM OPERATING ACTIVITIES					
Receipts from Customers	\$ 1,739,720	\$ 735,903	\$ 1,620	\$ 2,429,699	\$ 4,906,942
Payments to Suppliers for Goods and Services	(1,053,532)	(409,762)	(1,808)	(1,753,642)	(3,218,744)
Payments to Employees for Services	(105,566)	(124,960)	-	(719,410)	(949,936)
Miscellaneous	79,932	26	-	2,145	82,103
Net Cash Provided (Used) by Operating Activities	660,554	201,207	(188)	(41,208)	820,365
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES					
Interfund Borrowing	(51,507)	-	-	51,524	17
Transfers In	-	-	-	5,714	5,714
Transfers Out	(2,230)	(5,714)	(1,051,153)	(16,030)	(1,075,127)
Net Cash Provided (Used) for Noncapital Financing Activities	(53,737)	(5,714)	(1,051,153)	41,208	(1,069,396)
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES					
Acquisition and Construction of Capital Assets	(57,223)	-	-	-	(57,223)
CASH FLOWS FROM INVESTING ACTIVITIES					
Purchase of Investments	(29,338)	-	-	-	(29,338)
Investment Income	119,783	-	-	-	119,783
Net Cash Provided (Used) by Investing Activities	90,445	-	-	-	90,445
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENT	640,039	195,493	(1,051,341)	-	(215,809)
Cash and Cash Equivalents - Beginning of Year	1,757,916	2,813,502	1,051,341	-	5,622,759
CASH AND CASH EQUIVALENTS - END OF YEAR	<u>\$ 2,397,955</u>	<u>\$ 3,008,995</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 5,406,950</u>
RECONCILIATION OF OPERATING INCOME (LOSS) TO NET CASH PROVIDED (USED) BY OPERATING ACTIVITIES:					
Operating Income (Loss)	\$ 226,068	\$ (189,918)	\$ -	\$ (118,301)	\$ (82,151)
Adjustments to Reconcile Operating Income (Loss) to Net Cash Provided (Used) by Operating Activities					
Depreciation	22,734	-	-	21,155	43,889
Change in Assets, Deferred Outflows of Resources, Liabilities, and Deferred Inflows of Resources:					
(Increase) Decrease in Assets:					
Accounts Receivable	8,337	(26)	1,620	(386)	9,545
Inventories	-	-	-	5,936	5,936
Prepaid Items	(2,903)	-	-	(180)	(3,083)
Deferred Outflows of Resources					
Related to Pensions and Other Postemployment Benefits	2,587	638	-	15,272	18,497
Increase (Decrease) in Liabilities:					
Accounts Payable	23,853	(9,711)	(1,808)	10,626	22,960
Accrued Payroll and Employee Benefits	430	1,080	-	(7,544)	(6,034)
Compensated Absences	4,370	5,349	-	13,006	22,725
Claims Payable	371,169	383,620	-	-	754,789
Pension and Other Postemployment					
Benefits Liability	9,558	10,175	-	60,948	80,681
Deferred Inflows of Resources					
Related to Pensions and Other Postemployment Benefits	(5,649)	-	-	(41,740)	(47,389)
Net Cash Provided (Used) by Operating Activities	<u>\$ 660,554</u>	<u>\$ 201,207</u>	<u>\$ (188)</u>	<u>\$ (41,208)</u>	<u>\$ 820,365</u>
NONCASH CAPITAL, FINANCING AND INVESTING ACTIVITIES					
Transfer of Capital Assets to Governmental Activities	\$ -	\$ -	\$ 142,802	\$ -	\$ 142,802

STATISTICAL SECTION

CITY OF AVONDALE, ARIZONA
NET POSITION BY COMPONENT
LAST TEN FISCAL YEARS
(ACCRUAL BASIS OF ACCOUNTING)

	2011	2012	2013	2014 ¹
Governmental Activities				
Net Investment in Capital Assets	\$ 484,872,851	\$ 489,161,664	\$ 494,754,961	\$ 499,739,936
Restricted	30,174,849	27,637,885	20,548,326	23,376,185
Unrestricted	45,218,881	45,541,352	50,737,518	14,469,385
Total Governmental Activities Net Position	<u>\$ 560,266,581</u>	<u>\$ 562,340,901</u>	<u>\$ 566,040,805</u>	<u>\$ 537,585,506</u>
Business-Type Activities				
Net Investment in Capital Assets	\$ 488,787,961	\$ 482,912,493	\$ 479,033,932	\$ 474,668,428
Restricted	14,520,330	15,358,409	12,092,990	8,607,019
Unrestricted	44,374,708	44,766,194	46,511,771	42,327,797
Total Business-Type Activities Net Position	<u>\$ 547,682,999</u>	<u>\$ 543,037,096</u>	<u>\$ 537,638,693</u>	<u>\$ 525,603,244</u>
Primary Government				
Net Investment in Capital Assets	\$ 973,660,812	\$ 972,074,157	\$ 973,788,893	\$ 974,408,364
Restricted	44,695,179	42,996,294	32,641,316	31,983,204
Unrestricted	89,593,589	90,307,546	97,249,289	56,797,182
Total Primary Government Net Position	<u>\$ 1,107,949,580</u>	<u>\$ 1,105,377,997</u>	<u>\$ 1,103,679,498</u>	<u>\$ 1,063,188,750</u>

¹ In 2015, the City implemented GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*, as amended by GASB *Pension Transition for Contributions made Subsequent to the Measurement Date*. The 2014 net position has been restated for purposes to reflect the implementation.

² Beginning net position was restated due to implementation of GASB No. 75.

Source: Audited City of Avondale, Arizona, Comprehensive Annual Financial Reports.

SCHEDULE 1

2015	2016	2017	2018 ²	2019	2020
\$ 504,180,483	\$ 503,290,685	\$ 514,022,743	\$ 512,002,472	\$ 534,401,329	\$ 557,935,106
27,279,288	31,111,470	31,791,041	37,254,164	43,841,243	48,362,118
16,252,006	23,773,087	21,900,625	33,300,813	36,069,630	40,943,280
<u>\$ 547,711,777</u>	<u>\$ 558,175,242</u>	<u>\$ 567,714,409</u>	<u>\$ 582,557,449</u>	<u>\$ 614,312,202</u>	<u>\$ 647,240,504</u>
\$ 469,377,530	\$ 458,698,957	\$ 449,877,043	\$ 446,239,125	\$ 444,455,024	\$ 440,909,317
7,247,176	11,795,732	26,297,393	15,578,778	21,853,516	23,923,066
43,955,822	48,661,412	43,521,686	60,239,113	72,371,991	83,178,540
<u>\$ 520,580,528</u>	<u>\$ 519,156,101</u>	<u>\$ 519,696,122</u>	<u>\$ 522,057,016</u>	<u>\$ 538,680,531</u>	<u>\$ 548,010,923</u>
\$ 973,558,013	\$ 961,989,642	\$ 963,899,786	\$ 958,241,597	\$ 978,856,353	\$ 998,844,423
34,526,464	42,907,202	58,088,434	52,832,942	65,694,759	72,285,184
60,207,828	72,434,499	65,422,311	93,539,926	108,441,621	124,121,820
<u>\$ 1,068,292,305</u>	<u>\$ 1,077,331,343</u>	<u>\$ 1,087,410,531</u>	<u>\$ 1,104,614,465</u>	<u>\$ 1,152,992,733</u>	<u>\$ 1,195,251,427</u>

CITY OF AVONDALE, ARIZONA
CHANGES IN NET POSITION
LAST TEN FISCAL YEARS
(ACCRUAL BASIS OF ACCOUNTING)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Expenses										
Governmental Activities:										
General Government	\$ 15,364,915	\$ 12,194,735	\$ 12,769,952	\$ 12,331,057	\$ 12,920,373	\$ 13,902,546	\$ 14,309,548	\$ 17,413,185	\$ 13,286,390	\$ 17,518,396
Public Safety	25,139,168	24,509,660	26,087,882	27,920,756	29,193,364	31,025,502	42,260,573	38,601,762	38,891,455	42,226,785
Highways and Streets	13,246,764	12,514,335	12,144,322	12,363,230	14,148,176	12,849,769	12,539,013	13,797,634	14,906,217	14,895,706
Health and Welfare	2,511,615	2,748,093	3,937,970	3,491,716	3,086,230	3,509,117	3,200,864	3,592,893	3,476,278	3,387,949
Economic and Community Development	5,091,504	5,015,366	5,036,147	5,489,089	5,318,125	6,205,863	6,418,604	6,354,065	6,924,053	8,066,194
Culture and Recreation	3,268,540	3,675,781	3,813,472	4,783,299	5,048,110	5,576,173	5,416,224	5,964,961	6,790,207	7,338,930
Transportation	1,581,404	1,824,128	1,236,160	1,280,435	890,857	744,751	890,706	1,138,438	1,357,022	1,212,967
Interest on Long-Term Debt	4,849,805	4,573,048	4,357,797	3,788,220	3,574,631	3,368,741	2,887,484	1,268,556	1,722,511	2,276,266
Total Governmental Activities Expenses	<u>71,053,715</u>	<u>67,055,146</u>	<u>69,383,702</u>	<u>71,447,802</u>	<u>74,179,866</u>	<u>77,182,462</u>	<u>87,923,016</u>	<u>88,131,494</u>	<u>87,354,133</u>	<u>96,923,193</u>
Business-Type Activities:										
Water Utility	16,686,715	15,517,184	15,879,676	15,313,614	14,978,673	15,648,760	16,242,773	16,560,738	15,843,476	16,994,862
Wastewater Utility	11,361,012	11,232,156	11,500,364	11,992,043	12,039,948	11,862,023	12,389,737	11,620,939	10,355,180	14,409,900
Sanitation Utility	3,530,472	3,748,396	3,860,578	4,373,521	4,573,971	4,742,323	4,578,856	4,809,711	5,028,104	5,598,710
Total Business-Type Activities Expenses	<u>31,578,199</u>	<u>30,497,736</u>	<u>31,240,618</u>	<u>31,679,178</u>	<u>31,592,592</u>	<u>32,253,106</u>	<u>33,211,366</u>	<u>32,991,388</u>	<u>31,226,760</u>	<u>37,003,472</u>
Total Primary Government Expenses	<u>\$ 102,631,914</u>	<u>\$ 97,552,882</u>	<u>\$ 100,624,320</u>	<u>\$ 103,126,980</u>	<u>\$ 105,772,458</u>	<u>\$ 109,435,568</u>	<u>\$ 121,134,382</u>	<u>\$ 121,122,882</u>	<u>\$ 118,580,893</u>	<u>\$ 133,926,665</u>
Program Revenues										
Governmental Activities:										
Charges for Services:										
General Government	\$ 1,465,160	\$ 1,543,248	\$ 1,962,825	\$ 1,791,970	\$ 2,024,897	\$ 1,959,842	\$ 1,747,987	\$ 2,074,885	\$ 175,579	\$ 242,267
Public Safety	415,243	290,321	458,799	469,192	515,920	493,996	516,750	440,119	389,186	422,326
Highway and Streets	-	-	-	-	-	-	-	97,442	-	-
Economic and Community Development	895,233	614,765	862,360	800,438	1,118,951	1,501,234	2,637,557	3,255,772	4,595,774	5,107,216
Culture and Recreation	257,614	413,832	360,924	333,734	404,179	404,776	369,495	383,379	413,902	327,337
Operating Grants and Contributions	10,449,880	8,665,735	9,373,853	9,393,303	8,653,787	8,362,914	9,058,945	9,759,508	10,156,821	16,024,179
Capital Grants and Contributions	3,639,920	1,642,679	1,973,402	1,118,868	2,044,100	2,552,008	5,509,985	5,841,412	14,680,697	14,634,525
Total Governmental Activities Program Revenues	<u>17,123,050</u>	<u>13,170,580</u>	<u>14,992,163</u>	<u>13,907,505</u>	<u>14,761,834</u>	<u>15,274,770</u>	<u>19,840,719</u>	<u>21,852,517</u>	<u>30,411,959</u>	<u>37,085,187</u>
Business-Type Activities:										
Charges for Services:										
Water	11,315,015	12,241,675	11,882,083	12,227,233	11,527,730	12,840,329	14,655,947	15,451,443	15,024,198	15,829,321
Wastewater	7,466,785	7,695,007	7,746,807	7,963,581	7,988,157	8,247,723	9,133,838	9,731,664	10,515,981	10,140,190
Sanitation	4,845,058	4,909,423	4,954,195	5,032,187	5,055,904	5,104,181	5,139,643	5,247,119	5,326,271	5,323,312
Capital Grants and Contributions	719,803	444,983	1,042,780	653,419	1,299,643	3,590,768	4,107,998	4,242,922	3,293,949	11,498,981
Total Business-Type Activities Program Revenues	<u>24,346,661</u>	<u>25,291,088</u>	<u>25,625,865</u>	<u>25,876,420</u>	<u>25,871,434</u>	<u>29,783,001</u>	<u>33,037,426</u>	<u>34,673,148</u>	<u>34,160,399</u>	<u>90,323,963</u>
Total Primary Government Program Revenues	<u>\$ 41,469,711</u>	<u>\$ 38,461,668</u>	<u>\$ 40,618,028</u>	<u>\$ 39,783,925</u>	<u>\$ 40,633,268</u>	<u>\$ 45,057,771</u>	<u>\$ 52,878,145</u>	<u>\$ 56,525,665</u>	<u>\$ 64,572,358</u>	<u>\$ 127,409,150</u>

(continued on next page)

SCHEDULE 2

(Continuation)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Net (Expense) Revenue										
Governmental Activities	\$ (53,930,665)	\$ (53,884,566)	\$ (54,391,539)	\$ (57,540,297)	\$ (59,418,032)	\$ (61,907,692)	\$ (68,082,297)	\$ (66,278,977)	\$ (56,942,179)	\$ (60,165,343)
Business-Type Activities	(7,231,538)	(5,206,648)	(5,614,753)	(5,802,758)	(5,721,158)	(2,470,105)	(173,940)	1,681,760	2,933,640	5,788,332
Total Primary Government Net (Expenses) Revenues	<u>\$ (61,162,203)</u>	<u>\$ (59,091,214)</u>	<u>\$ (60,006,292)</u>	<u>\$ (63,343,055)</u>	<u>\$ (65,139,190)</u>	<u>\$ (64,377,797)</u>	<u>\$ (68,256,237)</u>	<u>\$ (64,597,217)</u>	<u>\$ (54,008,539)</u>	<u>\$ (54,377,011)</u>
General Revenues and Other Changes in Net Position										
Governmental Activities:										
Taxes										
Sales and Use Taxes	\$ 30,417,802	\$ 32,914,546	\$ 35,929,759	\$ 37,639,556	\$ 40,955,916	\$ 43,352,256	\$ 46,473,655	\$ 49,443,328	\$ 52,003,028	\$ 55,933,503
Property Taxes, Levied for General Purposes	2,210,771	2,278,643	2,302,649	2,421,361	2,478,599	2,607,457	2,681,915	2,794,009	2,939,551	3,140,055
Property Taxes, Levied for Debt Service	3,473,069	2,985,899	2,268,323	3,209,741	3,373,624	3,336,779	3,275,427	3,166,482	4,174,643	4,168,579
Franchise Taxes	1,950,000	1,096,920	1,101,693	1,132,811	1,150,766	1,090,135	1,135,350	1,256,448	1,223,384	1,136,532
State Shared Revenues, Unrestricted	14,410,652	14,870,469	16,617,488	17,896,107	19,151,120	19,590,959	20,499,811	21,713,658	22,314,405	23,670,592
Investment Income	318,931	282,485	(127,021)	408,645	342,423	399,174	400,040	660,720	3,113,051	3,536,012
Gain on Sale of Capital Assets	7,794	33,435	19,498	56,600	138,810	248,858	268,568	(40,759)	590,335	(27,200)
Miscellaneous	1,084,568	1,646,489	1,170,396	1,571,790	2,103,045	1,895,539	3,036,698	2,748,927	2,167,739	1,835,572
Transfers	(150,000)	(150,000)	(150,000)	(150,000)	(150,000)	(150,000)	(150,000)	(150,000)	(300,000)	(300,000)
Total Governmental Activities	<u>53,723,587</u>	<u>55,958,886</u>	<u>59,132,785</u>	<u>64,186,611</u>	<u>69,544,303</u>	<u>72,371,157</u>	<u>77,621,464</u>	<u>81,592,813</u>	<u>88,226,136</u>	<u>93,093,645</u>
Business-Type Activities:										
Investment Income	166,893	196,973	(69,172)	279,812	286,576	381,482	310,375	500,622	2,678,897	3,197,825
Gain on Sale of Capital Assets	-	-	-	83,030	25,231	155,204	104,002	124,425	38,168	44,235
Miscellaneous	381,724	213,772	263,193	241,999	236,635	358,992	149,584	456,716	-	-
Transfers	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	300,000	300,000
Total Business-Type Activities	<u>698,617</u>	<u>560,745</u>	<u>344,021</u>	<u>754,841</u>	<u>698,442</u>	<u>1,045,678</u>	<u>713,961</u>	<u>1,231,763</u>	<u>3,017,065</u>	<u>3,542,060</u>
Total Primary Government	<u>\$ 54,422,204</u>	<u>\$ 56,519,631</u>	<u>\$ 59,476,806</u>	<u>\$ 64,941,452</u>	<u>\$ 70,242,745</u>	<u>\$ 73,416,835</u>	<u>\$ 78,335,425</u>	<u>\$ 82,824,576</u>	<u>\$ 91,243,201</u>	<u>\$ 96,635,705</u>
Changes in Net Position										
Governmental Activities	\$ (1,062,078)	\$ 2,074,320	\$ 4,741,246	\$ 6,646,314	\$ 10,126,271	\$ 10,463,465	\$ 9,539,167	\$ 15,313,836	\$ 31,283,957	\$ 32,928,302
Business-Type Activities	(6,532,921)	(4,645,903)	(5,270,732)	(5,047,917)	(5,022,716)	(1,424,427)	540,021	2,913,523	5,950,705	9,330,392
Total Primary Government	<u>\$ (7,594,999)</u>	<u>\$ (2,571,583)</u>	<u>\$ (529,486)</u>	<u>\$ 1,598,397</u>	<u>\$ 5,103,555</u>	<u>\$ 9,039,038</u>	<u>\$ 10,079,188</u>	<u>\$ 18,227,359</u>	<u>\$ 37,234,662</u>	<u>\$ 42,258,694</u>

Source: Audited City of Avondale, Arizona, Comprehensive Annual

CITY OF AVONDALE, ARIZONA
FUND BALANCES OF GOVERNMENTAL FUNDS
LAST TEN FISCAL YEARS
(MODIFIED ACCRUAL BASIS OF ACCOUNTING)

	2011	2012	2013	2014
General Fund				
Nonspendable:				
Inventory	\$ 3,783	\$ 3,176	\$ 2,202	\$ 449
Prepaid Items	164,012	271,673	131,888	131,306
Due from Other Funds	-	-	1,200,000	4,156,428
Advances to Other Funds	-	-	-	-
Restricted for:				
Public Safety	326,879	349,992	171,150	130,205
Committed to:				
Budgetary Stabilization	20,107,819	16,192,523	15,389,437	18,934,773
Assigned to:				
Other Purposes	2,150,250	7,253,410	5,453,049	8,721,580
Unassigned	3,036,074	7,916,399	10,382,138	1,800,250
Total General Fund	<u>\$ 25,788,817</u>	<u>\$ 31,987,173</u>	<u>\$ 32,729,864</u>	<u>\$ 33,874,991</u>
All other Governmental Funds				
Nonspendable:				
Inventory	\$ 225,904	\$ 220,837	\$ 281,218	\$ 309,973
Prepaid Items	612,457	771,513	671,092	688,572
Restricted for:				
Transit Services	61,744	1,688,441	1,627,956	1,137,018
Highway and Streets	3,249,085	3,334,517	3,601,986	3,853,579
Court	516,711	554,471	613,134	634,184
Grant and Contributor Purposes	1,139,954	955,553	119,721	597,631
Public Safety	1,233,782	2,090,147	3,362,724	4,685,520
Debt Service	12,648,785	11,726,347	5,830,512	7,879,134
Capital Projects	8,810,461	4,073,188	2,442,036	792,935
Water, Sewer and Street Projects	523,204	420,781	1,099,439	1,765,548
Crime Victim Advocacy	93,903	155,389	154,178	131,924
Committed to:				
Capital Projects	2,871,197	668,344	3,956,556	322,646
Crime Victim Advocacy	46,951	77,694	51,393	43,974
Assigned to:				
Vehicle Replacement	6,442,998	7,062,662	8,438,757	8,171,863
Equipment Replacement	1,033,740	331,294	335,328	664,109
Capital Projects	4,536,974	4,288,987	4,588,564	7,178,750
Grant and Contributor Purposes	-	-	-	-
Transit Services	2,945,885	-	-	-
Unassigned	-	-	(185,532)	(632,375)
Total all Other Governmental Funds	<u>\$ 46,993,735</u>	<u>\$ 38,420,165</u>	<u>\$ 36,989,062</u>	<u>\$ 38,224,985</u>

Source: Audited City of Avondale, Arizona, Comprehensive Annual Financial Reports.

SCHEDULE 3

2015	2016	2017	2018	2019	2020
\$ -	\$ 434	\$ 6,526	\$ -	\$ 185,773	\$ 9,415
342,255	112,432	66,495	86,099	207,169	507,805
3,838,468	833,000	-	-	-	-
-	-	833,000	833,000	128,000	128,000
335,058	254,758	102,794	50,965	77,977	248,072
19,405,505	20,092,995	21,400,558	21,867,357	26,907,594	21,752,584
4,882,920	3,997,254	12,651,519	2,386,030	6,990,024	-
7,521,330	16,497,354	15,704,372	22,849,263	22,997,628	36,695,305
<u>\$ 36,325,536</u>	<u>\$ 41,788,227</u>	<u>\$ 50,765,264</u>	<u>\$ 48,072,714</u>	<u>\$ 57,494,165</u>	<u>\$ 59,341,181</u>
\$ 320,636	\$ 305,262	\$ 307,706	\$ 267,598	\$ 382,970	\$ 19,971
361,123	400,766	61,168	7,765	189,741	765,442
977,138	1,356,976	1,579,099	1,752,045	1,621,340	2,050,132
4,673,503	5,826,016	7,169,856	8,739,999	7,454,379	3,938,426
657,831	639,778	613,041	575,788	568,017	548,403
914,738	817,062	1,337,527	1,805,961	2,216,806	2,251,488
6,033,061	7,438,683	7,790,078	8,602,953	9,772,966	11,573,467
8,430,380	8,912,477	6,117,403	7,598,789	7,846,612	8,656,344
1,291,443	1,388,787	1,436,817	2,664,535	21,794,996	24,946,031
2,251,750	2,908,567	4,059,144	5,659,841	7,617,695	8,872,136
163,340	141,475	143,216	156,204	274,366	337,224
263,234	3,544,816	1,667,731	2,969,597	-	-
54,447	47,158	47,738	52,068	91,452	112,410
7,519,081	7,271,801	6,923,450	7,979,615	8,885,144	11,275,728
762,199	1,051,461	1,013,680	1,298,485	1,073,667	2,183,868
7,728,456	5,245,637	4,787,077	15,498,698	12,025,797	14,637,867
-	-	-	-	-	115,567
-	-	-	-	-	-
(741,111)	(35,283)	(77,490)	(77,490)	(1,717,345)	-
<u>\$ 41,661,249</u>	<u>\$ 47,261,439</u>	<u>\$ 44,977,241</u>	<u>\$ 65,552,451</u>	<u>\$ 80,098,603</u>	<u>\$ 92,284,504</u>

CITY OF AVONDALE, ARIZONA
CHANGES IN FUND BALANCES OF GOVERNMENTAL FUNDS
LAST TEN FISCAL YEARS
(MODIFIED ACCRUAL BASIS OF ACCOUNTING)

	2011	2012	2013	2014
Revenues				
Taxes	\$ 37,206,864	\$ 39,383,889	\$ 41,645,010	\$ 44,454,517
Licenses and Permits	1,073,233	1,342,998	2,076,599	1,435,548
Intergovernmental	26,755,077	23,743,672	25,607,050	26,568,228
Charges for Services	1,322,030	891,777	1,129,782	1,111,375
Fines, Forfeitures, and Penalties	1,152,077	1,175,041	1,357,243	1,219,003
Investment Income	315,685	279,999	(130,638)	406,914
Contributions	813,886	1,042,296	268,399	814,318
Miscellaneous	1,117,621	1,364,648	1,222,169	1,682,888
Total Revenues	<u>69,756,473</u>	<u>69,224,320</u>	<u>73,175,614</u>	<u>77,692,791</u>
Expenditures				
General Government	12,077,265	11,049,852	11,679,121	11,106,677
Public Safety	23,717,192	23,360,386	24,810,275	26,267,504
Highways and Streets	3,472,183	2,518,264	1,766,303	1,943,651
Sanitation ¹	-	-	-	-
Health and Welfare	2,660,252	2,766,874	3,966,243	3,542,511
Economic and Community Development	4,886,947	5,015,247	5,055,207	5,341,635
Culture and Recreation	3,409,346	2,484,829	2,480,049	3,509,702
Transportation	1,580,838	1,823,627	1,234,845	1,277,281
Debt Service				
Principal	8,585,695	8,554,217	13,712,314	5,278,486
Interest and Other Charges	5,023,373	4,706,601	4,621,821	3,844,374
Capital Outlay	23,240,459	9,223,066	4,656,036	12,992,364
Total Expenditures	<u>88,653,550</u>	<u>71,502,963</u>	<u>73,982,214</u>	<u>75,104,185</u>
EXCESS OF REVENUES OVER (UNDER) EXPENDITURES	(18,897,077)	(2,278,643)	(806,600)	2,588,606
OTHER FINANCING SOURCES (USES)				
Bond Issuance	-	-	-	-
Refunding Bonds Issued	-	-	9,275,000	-
Payment to Refunding Bonds Escrow Agent	-	-	(9,469,388)	-
Bond Premium (Discount)	-	-	427,048	-
Capital Leases	-	-	-	-
Sale of Capital Assets	7,794	38,369	19,498	58,094
Transfer In	12,859,860	10,356,562	18,827,399	15,114,320
Transfer Out	(12,990,040)	(10,491,502)	(18,961,369)	(15,379,970)
Total Other Financing Sources (Uses)	<u>(122,386)</u>	<u>(96,571)</u>	<u>118,188</u>	<u>(207,556)</u>
NET CHANGE IN FUND BALANCE	<u>\$ (19,019,463)</u>	<u>\$ (2,375,214)</u>	<u>\$ (688,412)</u>	<u>\$ 2,381,050</u>
Debt Service as a Percentage of Noncapital Expenditures	20.8 %	21.3 %	26.4 %	14.7 %

Source: Audited City of Avondale, Arizona, Comprehensive Annual Financial Reports.

SCHEDULE 4

2015	2016	2017	2018	2019	2020
\$ 48,121,583	\$ 50,433,911	\$ 53,621,688	\$ 56,655,533	\$ 60,385,319	\$ 64,299,980
2,532,559	3,687,377	5,297,673	7,142,796	4,427,131	5,541,167
27,061,879	27,914,071	29,665,270	31,229,183	32,551,139	39,587,746
1,244,710	1,233,719	1,677,400	2,149,686	1,502,560	1,701,390
1,403,457	1,255,197	1,059,626	1,275,599	1,257,723	1,094,797
335,873	375,359	380,740	627,961	2,915,435	3,333,448
320,386	315,948	362,695	338,603	514,193	420,716
2,345,170	2,087,860	2,373,397	2,295,587	2,167,739	1,835,572
<u>83,365,617</u>	<u>87,303,442</u>	<u>94,438,489</u>	<u>101,714,948</u>	<u>105,721,239</u>	<u>117,814,816</u>
11,269,744	12,885,068	12,325,497	14,597,179	12,853,986	15,344,639
27,588,742	29,453,443	31,889,715	34,895,720	36,287,670	37,073,434
3,645,538	2,354,255	2,572,848	2,908,744	3,433,985	3,831,136
-	-	-	-	-	-
3,109,810	3,590,178	3,300,924	3,719,705	3,456,788	3,196,520
5,491,412	6,049,229	6,094,461	6,332,025	6,885,367	7,644,528
3,851,074	3,716,124	3,849,886	4,185,181	4,764,881	4,699,724
894,655	704,440	772,784	1,029,151	1,248,002	1,111,568
6,324,153	6,436,835	7,131,893	6,621,797	8,315,593	7,710,198
3,614,285	3,409,627	3,282,008	1,914,361	2,003,434	2,639,197
11,544,285	7,799,212	13,693,511	12,936,782	27,127,880	31,674,938
<u>77,333,698</u>	<u>76,398,411</u>	<u>84,913,527</u>	<u>89,140,645</u>	<u>106,377,586</u>	<u>114,925,882</u>
6,031,919	10,905,031	9,524,962	12,574,303	(656,347)	2,888,934
-	-	-	-	21,390,000	10,096,000
-	-	23,457,070	21,350,000	-	-
-	-	(29,768,467)	(23,395,316)	-	-
-	-	3,012,110	2,464,479	2,930,479	-
-	-	304,326	4,542,254	-	-
187,050	295,690	283,585	487,210	1,333,351	135,768
19,485,856	15,549,460	15,862,362	27,045,943	18,514,412	56,646,323
(19,818,016)	(15,687,300)	(15,983,109)	(27,186,213)	(19,544,292)	(55,734,108)
<u>(145,110)</u>	<u>157,850</u>	<u>(2,832,123)</u>	<u>5,308,357</u>	<u>24,623,950</u>	<u>11,143,983</u>
<u>\$ 5,886,809</u>	<u>\$ 11,062,881</u>	<u>\$ 6,692,839</u>	<u>\$ 17,882,660</u>	<u>\$ 23,967,603</u>	<u>\$ 14,032,917</u>
15.1 %	14.4 %	14.6 %	12.2 %	13.0 %	12.4%

**CITY OF AVONDALE, ARIZONA
ASSESSED VALUE, ESTIMATED ACTUAL VALUE, AND
ASSESSMENT RATIOS OF TAXABLE PROPERTY
LAST TEN FISCAL YEARS**

Fiscal Year	Residential Owner Occupied Property	Residential Rental Property	Commercial and Industrial Property	Agricultural and Vacant Property	RailRoad Property	Residential Historical Property
2020	\$ 175,576,958	\$ 102,852,966	\$ 150,835,339	\$ 100,325,822	\$ 322,790	\$ -
2019	163,970,338	93,961,360	136,339,793	91,429,994	319,883	-
2018	149,686,468	92,400,739	126,136,282	90,465,727	900,915	-
2017	137,409,818	90,426,563	118,616,719	88,235,352	333,596	25,525
2016	128,105,887	88,843,605	117,207,777	87,680,276	366,205	31,770
2015	132,908,565	93,145,393	118,877,122	93,364,094	394,449	146,376
2014	113,438,968	75,890,104	116,797,461	99,601,422	363,777	166,031
2013	134,867,886	67,361,870	132,735,913	102,602,512	358,763	-
2012	151,109,673	72,776,766	157,022,411	117,887,415	335,769	-
2011	196,235,454	85,274,561	212,453,689	149,830,377	364,145	-

Assessment Ratios³ of Taxable Property

Fiscal Year	Residential Owner Occupied Property	Residential Rental Property	Commercial and Industrial Property	Agricultural and Vacant Property	RailRoad Property	Residential Historical Property
2020	10.0 %	10.0 %	18.0 %	15.0 %	15.0 %	5.0 %
2019	10.0	10.0	18.0	15.0	15.0	5.0
2018	10.0	10.0	18.0	15.0	15.0	5.0
2017	10.0	10.0	18.0	15.0	15.0	5.0
2016	10.0	10.0	18.0	15.0	14.0	5.0
2015	10.0	10.0	18.5	16.0	15.0	5.0
2014	10.0	10.0	19.0	16.0	16.0	5.0
2013	10.0	10.0	19.5	16.0	15.0	5.0
2012	10.0	10.0	20.0	16.0	15.0	5.0
2011	10.0	10.0	20.0	16.0	15.0	5.0

¹ Prior to FY 2016, secondary assessed property value was used for secondary ad valorem taxes levied for debt service.

² Property in Maricopa County is required to be reassessed yearly. Tax rates are determined using assessed using property assessed values and the required tax levy. The assessed value divided by 100 multiplied by the tax rate determines the taxes billed.

³ The assessment ratios for each property classification is applied to the total property assessed value to determine the respective assessed valuation for tax levy purposes.

⁴ Includes tax exempt property.

Source: Maricopa County Assessor's Office and Arizona Department of Revenue, *Abstract of the Assessment Roll* and Maricopa County Tax Rate Book web publication for the applicable years.

SCHEDULE 5

Municipal Property Improvements		Gross Valuation	Less: Tax Exempt Real Property	Total Property Assessed Value ¹	Total Direct Tax Rate	Estimated Actual Taxable Value	as a Percentage of Actual Value ⁴
\$	50,495	\$ 529,964,370	\$ (95,869,418)	\$ 434,094,952	1.65	\$ 4,298,259,968	12.33 %
	81,557	486,102,925	(87,813,977)	398,288,948	1.76	3,956,687,355	12.29
	45,801	459,635,932	(88,713,776)	370,922,156	1.60	3,734,960,323	12.31
	44,438	435,092,011	(85,989,407)	349,102,604	1.70	3,534,105,675	12.31
	-	422,235,520	(85,077,008)	337,158,512	1.75	3,355,310,655	12.58
	59,574	438,895,573	(88,208,960)	350,686,613	1.75	3,478,927,843	12.62
	-	406,257,763	(91,282,079)	314,975,684	1.80	3,118,036,373	13.03
	-	437,926,944	(92,254,812)	345,672,132	1.33	3,329,277,135	13.15
	-	499,132,034	(96,728,376)	402,403,658	1.33	3,762,818,468	13.26
	-	644,158,226	(119,852,877)	524,305,349	1.11	4,765,228,782	13.52

CITY OF AVONDALE, ARIZONA
PROPERTY TAX RATES — DIRECT AND OVERLAPPING GOVERNMENTS
LAST TEN FISCAL YEARS
(RATE PER \$100 OF ASSESSED VALUATION)

Fiscal Year		Direct Rate	Overlapping Rates ¹				
		City of Avondale, Arizona	County		Tolleson Elementary School District No. 17	Tolleson Union High School District No. 214	Pendergast Elementary School District No. 92
			County- wide	Community College			
2020	Primary	0.70	1.40	1.16	2.09	2.61	2.05
	Secondary	<u>0.95</u> 1.65	0.00	0.17	2.85	2.40	4.28
2019	Primary	0.73	1.40	1.17	2.14	2.67	2.16
	Secondary	<u>1.03</u> 1.76	0.00	0.20	2.71	1.78	4.55
2018	Primary	0.75	1.40	1.20	2.12	2.16	2.26
	Secondary	<u>0.85</u> 1.60	0.00	0.21	2.35	1.77	4.60
2017	Primary	0.77	1.40	1.24	2.22	2.27	2.16
	Secondary	<u>0.93</u> 1.70	0.00	0.23	2.59	1.29	4.53
2016	Primary	0.78	1.36	1.26	2.07	2.40	2.53
	Secondary	<u>0.97</u> 1.75	0.00	0.23	2.71	1.61	4.35
2015	Primary	0.78	1.32	1.28	1.98	2.86	2.68
	Secondary	<u>0.97</u> 1.75	0.00	0.24	2.59	1.68	4.51
2014	Primary	0.79	1.28	1.29	1.92	3.22	2.76
	Secondary	<u>1.02</u> 1.81	0.00	0.24	2.27	2.27	4.51
2013	Primary	0.68	1.24	1.16	2.38	2.30	2.05
	Secondary	<u>0.66</u> 1.34	0.00	0.22	1.67	2.54	4.33
2012	Primary	0.58	1.24	1.01	2.47	1.96	1.82
	Secondary	<u>0.75</u> 1.33	0.00	0.20	2.46	2.11	4.79
2011	Primary	0.45	1.05	0.79	2.19	1.51	1.69
	Secondary	<u>0.65</u> 1.10	0.00	0.18	3.11	1.21	4.11

¹ Overlapping rates are those of local and county governments that apply to the property owners with the City of Avondale. Not all overlapping rates apply to all Avondale property owners. For example, although county property tax rates apply to all city property owners, the school district rates apply only to those property owners whose property is located within the district's geographical boundaries.

Source: Maricopa County Finance Department web publication, 2018 Tax Rates Maricopa County, Arizona.

SCHEDULE 6

Overlapping Rates ¹				
Litchfield Elementary School District No. 79	Avondale Elementary School District No. 44	Agua Fria Union High School District No. 216	Littleton Elementary School District No. 65	Liberty Elementary School District No. 25
1.90	1.99	2.07	2.24	2.17
1.77	2.55	1.26	3.42	2.94
1.97	2.12	2.03	2.20	2.01
1.88	2.90	1.45	3.38	1.53
2.04	2.28	2.46	2.42	2.07
1.44	2.94	1.26	3.46	1.66
2.24	3.31	2.08	2.33	2.00
1.57	3.09	1.39	3.64	1.80
2.26	3.11	2.07	2.48	2.55
1.57	3.12	1.19	3.45	1.72
2.33	2.74	2.99	2.59	2.80
1.45	3.06	1.21	3.31	1.70
2.44	2.31	2.29	2.42	1.91
1.54	2.33	1.28	3.55	1.55
2.31	2.02	2.04	2.45	2.07
1.58	2.31	1.13	1.93	1.47
1.94	2.77	1.69	1.33	1.87
1.32	2.03	0.99	2.47	1.33
1.62	1.51	1.62	1.60	1.96
1.30	1.43	0.83	1.87	1.34

**CITY OF AVONDALE, ARIZONA
PRINCIPAL PROPERTY TAXPAYERS
CURRENT YEAR AND NINE YEARS AGO**

SCHEDULE 7

Taxpayer	2020				2011		
	Taxable Assessed Value ¹	Rank	Percentage of Total Taxable Assessed Value		Taxable Assessed Value ¹	Rank	Percentage of Total Taxable Assessed Value
Phoenix Speedway Corp	\$ 9,552,925	1	2.58 %	\$	8,115,425	1	1.15
J&J Coldwater LLC	7,921,317	2	2.14				
Inland Westland Avondale McDowell LLC	6,098,893	3	1.64		7,835,649	2	1.11
Arizona Public Service Company	4,682,963	4	1.26		-		
Avalon Tic Two LLC/Avalon Tic One LLC	4,340,000	5	1.17		-	3	
Avondale Commerce LLC	3,590,987	6	0.97		-		
Gateway Crossing SC LLC	3,508,199	7	0.95		-		
MREI IV Mirabella LLC	3,423,845	8	0.92		-		
Mechanic (AZ) QRS 15-41 INC	3,420,581	9	0.92		4,787,216	7	0.68
Crystal Springs Apartments LLC	3,313,343	10	0.89		-		
Moreland Properties, LLC					6,316,481		0.90
Raintree Pad 2 LLC					6,272,083	4	0.89
Smiths Food & Drug Centers INC					4,906,813	5	0.70
D H Ventures LLC					4,830,000	6	0.69
1250 N El Mirage Road - Avondale LLC					4,370,100	8	0.62
1050 N El Mirage Rd - Avondale LLC					4,352,925	9	0.62
Harkins Phoenix Cinemas LLC					4,092,464	10	0.58
Total	<u>\$ 49,853,053</u>		<u>13.44 %</u>		<u>\$ 55,879,156</u>		<u>7.94 %</u>

¹ Prior to FY 2016, secondary assessed property value was used for secondary ad valorem taxes levied for debt service. Beginning in FY 2016, with a voter-approved Constitutional amendment, secondary ad valorem taxes are now levied on limited assessed property value.

Source: Maricopa County Assessor records.

**CITY OF AVONDALE, ARIZONA
PROPERTY TAX LEVIES AND COLLECTIONS
LAST TEN FISCAL YEARS**

SCHEDULE 8

Fiscal Year	Original Property Tax Levy	Amount	Percentage of Levy	Collections in Subsequent Years	Amount	Percentage of Levy
2020	\$ 7,162,807	\$ 6,989,449	97.58 %	\$ -	\$ 6,989,449	97.58 %
2019	7,049,735	6,960,919	98.74	72,638	7,033,557	99.77
2018	5,941,343	5,858,479	98.61	70,432	5,928,911	99.79
2017	5,913,568	5,825,124	98.50	68,686	5,893,809	99.67
2016	5,882,634	5,781,431	98.28	75,460	5,856,891	99.56
2015	5,948,064	5,830,887	98.03	83,609	5,914,496	99.44
2014	5,659,729	5,545,279	97.98	70,067	5,615,346	99.22
2013	4,589,635	4,474,610	97.49	71,414	4,546,024	99.05
2012	5,294,450	5,131,506	96.92	80,488	5,211,994	98.44
2011	5,632,413	5,413,477	96.11	116,669	5,530,146	98.18

¹ Property taxes are payable in two installments. The first installment becomes due on the first day of October and is delinquent after the first business day of November. The second installment is due on the first day of March and becomes delinquent after the first business day of May. Delinquent property taxes are subject to a penalty of 16% per annum, prorated at a monthly rate of 1.33%.

Source: Maricopa County Budget Department and Maricopa County Treasurer's Office, *Secured Levy Report Through June 30, 2020*.



**CITY OF AVONDALE, ARIZONA
DIRECT AND OVERLAPPING NET LIMITED ASSESSED
PROPERTY VALUES AND TAX RATES
PER \$100 ASSESSED VALUATION**

SCHEDULE 9

Overlapping Jurisdiction	2018-19 Net Limited Assessed Value for Tax Purposes Purposes	2018-19 Total Tax Rate Per \$100 Net Limited Assessed Value for Tax Value for Tax
State of Arizona	\$ 66,154,632,834	None
Maricopa County	43,194,326,395	1.8575 (a)
Maricopa County Community College District	43,194,326,395	1.3285
Maricopa County Fire District Assistance Tax	43,194,326,395	0.0095
Maricopa County Special Health Care District	42,997,577,641	0.3333
Maricopa County Library District	43,194,326,395	0.0556
Maricopa County Flood Control District	39,558,003,840	0.1792
Central Arizona Water Conservation District	42,997,577,641	0.1400
 Tolleson Elementary School District No. 17	 202,237,409	 4.9417
Liberty Elementary School District No. 25	276,988,483	3.3394
Avondale Elementary School District No. 44	409,263,727	4.5411
Littleton Elementary School District No. 65	271,421,355	5.6588
Litchfield Elementary School District No. 79	902,684,659	3.6716
Pendergast Elementary School District No. 92	346,530,242	6.3280
 Agua Fria Union High School District No. 216	 1,311,948,386	 3.3298
Buckeye Union High School District No. 201	775,635,716	3.3348
Tolleson Union High School District No. 214	1,249,874,282	5.0128
 Western Maricopa Education Center	 15,894,829,755	 0.1634
 City of Avondale	 434,094,952	 1.6543

(a) Includes the "State Equalization Assistance Property Tax" which is levied by the County and has been set at \$0.4566 per \$100 Net Limited Assessed Property Value for fiscal year 2019-20. Such amount is adjusted annually pursuant to Arizona Revised Statutes, Section 41-1276.

Source: *Property Tax Rates and Assessed Values*, Arizona Tax Research Association.

CITY OF AVONDALE, ARIZONA
TRANSACTION PRIVILEGE TAXES BY INDUSTRY CLASSIFICATION
LAST TEN FISCAL YEARS

	2011	2012	2013	2014	2015
Retail	\$ 18,832,147	\$ 20,938,049	\$ 22,749,307	\$ 24,510,356	\$ 26,986,156
Construction	1,188,487	1,415,172	1,323,781	1,139,469	1,155,268
Real Estate & Rentals	3,890,097	4,131,206	3,909,022	4,025,883	4,278,607
Communication & Utilities	2,022,346	2,041,519	2,082,661	2,049,404	2,031,513
Restaurants & Bars	2,459,856	2,695,339	2,875,647	3,226,930	3,164,390
Amusement	592,433	590,559	616,874	666,567	679,671
Use Tax	201,255	249,884	235,002	278,274	340,492
Equipment Rental	531,363	541,950	579,379	665,089	739,617
All Others	302,290	284,956	311,003	318,829	385,657
Total	<u>\$ 30,020,274</u>	<u>\$ 32,888,634</u>	<u>\$ 34,682,676</u>	<u>\$ 36,880,801</u>	<u>\$ 39,761,371</u>

	Year-over-Year Increase (Decrease)				
Retail	3.2 %	11.2 %	8.7 %	7.7 %	10.1 %
Construction	(42.3)	19.1	(6.5)	(13.9)	1.4
Real Estate & Rentals	11.6	6.2	(5.4)	3.0	6.3
Communication & Utilities	(1.9)	0.9	2.0	(1.6)	(0.9)
Restaurants & Bars	8.0	9.6	6.7	12.2	(1.9)
Amusement	(10.4)	(0.3)	4.5	8.1	2.0
Use Tax	(1.4)	24.2	(6.0)	18.4	22.4
Equipment Rental	2.5	2.0	6.9	14.8	11.2
All Others	(14.5)	(5.7)	9.1	2.5	21.0
Total	<u>0.5 %</u>	<u>9.6 %</u>	<u>5.5 %</u>	<u>6.3 %</u>	<u>7.8 %</u>

¹ Totals may differ from governmental activities tax revenues due to differences in reporting periods.

Source: City records.

SCHEDULE 10

2016	2017	2018	2019	2020
\$ 28,562,740	\$ 30,102,662	\$ 31,705,835	\$ 33,716,323	\$ 37,147,412
1,346,678	2,952,141	3,648,705	3,500,442	3,493,454
4,280,205	4,300,470	4,494,779	4,789,384	5,110,127
2,142,543	2,022,266	1,933,124	1,871,771	1,949,122
3,487,810	3,780,226	4,311,152	4,566,490	4,509,634
734,094	672,178	698,255	716,798	683,355
346,127	440,636	488,579	548,682	619,413
805,719	1,135,654	1,069,078	1,171,147	1,201,403
430,470	466,508	516,266	546,654	554,802
<u>\$ 42,136,386</u>	<u>\$ 45,872,741</u>	<u>\$ 48,865,773</u>	<u>\$ 51,427,691</u>	<u>\$ 55,268,722</u>

Year-over-Year Increase (Decrease)				
5.8 %	5.4 %	5.3 %	6.3 %	10.2 %
16.6	119.2	23.6	(4.1)	(0.2)
0.0	0.5	4.5	6.6	6.7
5.5	(5.6)	(4.4)	(3.2)	4.1
10.2	8.4	14.0	5.9	(1.2)
8.0	(8.4)	3.9	2.7	(4.7)
1.7	27.3	10.9	12.3	12.9
8.9	40.9	(5.9)	9.5	2.6
11.6	8.4	10.7	5.9	1.5
<u>6.0 %</u>	<u>8.9 %</u>	<u>6.5 %</u>	<u>5.2 %</u>	<u>7.5 %</u>

CITY OF AVONDALE, ARIZONA
RATIOS OF OUTSTANDING DEBT BY TYPE
LAST TEN FISCAL YEARS
(AMOUNTS EXPRESSED IN THOUSANDS, EXCEPT PER CAPITA AMOUNT)

Fiscal Year	Governmental Activities ¹					
	General Obligation Bonds	HURF Bonds	Municipal Development Corporation Bonds ²	Pledged Revenue Refunding Obligations ²	Direct Placement Pledged Revenue Refunding Obligations ²	Capital Leases
2020	\$ 42,303	\$ -	\$ -	\$ 13,788	\$ 10,096	\$ 4,088
2019	44,785	-	-	19,360	-	4,359
2018	24,001	-	-	24,738	-	4,542
2017	22,315	330	-	30,175	-	273
2016	24,762	720	32,902	5,063	-	-
2015	26,540	1,093	34,899	7,474	-	-
2014	28,598	1,451	36,823	9,580	-	-
2013	31,596	1,800	38,679	9,641	-	137
2012	34,449	2,133	58,144	-	-	551
2011	37,237	2,456	63,275	-	-	948

¹ Amounts are presented net of unamortized discounts and premiums.

² The City issued Pledged Revenue Refunding Obligations and refunded all outstanding Municipal Development Corporation Bonds in fiscal year 2017.

³ See Demographics and Economic Statistics Schedule 20 on page 156 for personal income and population data.

Source: City records.

SCHEDULE 11

Business-Type Activities¹

Water and Sewer System Revenue Obligations	Municipal Development Corporation Bonds ²	Pledged Revenue Refunding Obligations ²	WIFA Loans	Total Primary Government	Percentage of Personal Income ³	Per Capita ³
\$ 8,464	\$ -	\$ 412	\$ -	\$ 79,151	2.01 %	958
9,259	-	559	-	78,322	1.99	948
10,872	-	700	-	64,853	1.80	810
11,110	-	843	-	65,046	1.81	812
2,472	1,177	-	-	67,096	2.02	851
2,980	1,240	-	-	74,226	2.25	951
3,190	1,589	-	-	81,231	2.49	1,048
4,770	1,696	-	-	88,319	2.79	1,116
6,785	1,800	-	-	103,862	3.74	1,327
8,625	2,166	-	-	114,707	4.07	1,482

**CITY OF AVONDALE, ARIZONA
LEGAL DEBT MARGIN INFORMATION
LAST TEN FISCAL YEARS**

	2011	2012	2013	2014
Property Assessed Value ²	\$ 524,305,349	\$ 402,403,658	\$ 345,672,132	\$ 314,975,684
<u>20% Limitation</u>				
Debt Limit	104,861,070	80,480,732	69,134,426	62,995,137
Net Debt Applicable to Limit	35,805,000	33,195,000	30,530,000	27,730,000
Legal Debt Margin	<u>\$ 69,056,070</u>	<u>\$ 47,285,732</u>	<u>\$ 38,604,426</u>	<u>\$ 35,265,137</u>
Total Net Debt Applicable to the Limit as a Percentage of Debt Limit	34.1%	41.2%	44.2%	44.0%

	2011	2012	2013	2014
<u>6% Limitation</u>				
Debt Limit	\$ 31,458,321	\$ 24,144,219	\$ 20,740,328	\$ 18,898,541
Net Debt Applicable to Limit	1,355,000	1,190,000	1,015,000	830,000
Legal Debt Margin	<u>\$ 30,103,321</u>	<u>\$ 22,954,219</u>	<u>\$ 19,725,328</u>	<u>\$ 18,068,541</u>
Total Net Debt Applicable to the Limit as a Percentage of Debt Limit	4.3%	4.9%	4.9%	4.4%

¹ Under the provisions of the Arizona Constitution, the City's combined outstanding general obligation bonded debt for water, sewer, light, open space preserves, parks, playgrounds and recreational facilities may not exceed 20% of the City's net secondary assessed valuation, nor may general obligation bonded debt for all other purposes exceed 6% of the City's net secondary assessed valuation. In fiscal year 2008, the State amended the law and moved streets and public safety to the 20% limitation from the 6% limitation.

² Prior to FY 2016, property assessed value was based on secondary assessed property value. Beginning in FY 2016, with a voter-approved Constitutional amendment, property assessed value is based on full cash assessed property value.

Source: Maricopa County Assessor and City records.

SCHEDULE 12

Legal Debt Margin Calculation:	2017	2018	2019	2020
Net assessed valuation:	\$ 463,069,349	\$ 510,270,136	\$ 569,188,401	\$ 633,585,560
Debt limit (20% of assessed value):	92,613,870	102,054,027	113,837,680	126,717,112
Less amount of debt applicable to limit:				
General obligation bonds outstanding	22,085,000	21,740,000	31,543,099	29,541,849
Less fund balance available for repayment of general obligation debt	(218,803)	(2,683,477)	(2,345,992)	(2,683,477)
Total net debt applicable to the limit	21,866,197	19,056,523	29,197,107	26,858,372
Legal debt margin	<u>\$ 70,747,673</u>	<u>\$ 82,997,504</u>	<u>\$ 84,640,573</u>	<u>\$ 99,858,740</u>

2015	2016 ²	2017 ²	2018 ²	2019 ²	2020
\$ 350,686,613	\$ 427,620,861	\$ 463,069,349	\$ 510,270,136	\$ 569,188,401	\$ 633,585,560
70,137,323	85,524,172	92,613,870	102,054,027	113,837,680	126,717,112
25,880,000	24,315,000	21,866,197	19,056,523	29,197,107	26,858,372
<u>\$ 44,257,323</u>	<u>\$ 61,209,172</u>	<u>\$ 70,747,673</u>	<u>\$ 82,997,504</u>	<u>\$ 84,640,573</u>	<u>\$ 99,858,740</u>

36.9%	28.4%	23.6%	18.7%	25.6%	21.2%
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Legal Debt Margin Calculation:	2017	2018	2019	2020
Net assessed valuation:	\$ 463,069,349	\$ 510,270,136	\$ 569,188,401	\$ 633,585,560
Debt limit (6% of assessed value):	27,784,161	30,616,208	34,151,304	38,015,134
Less amount of debt applicable to limit:				
General obligation bonds outstanding	225,000	-	8,396,901	8,153,151
Less fund balance available for repayment of general obligation debt	-	-	-	-
Total net debt applicable to the limit	225,000	-	8,396,901	8,153,151
Legal debt margin	<u>\$ 27,559,161</u>	<u>\$ 30,616,208</u>	<u>\$ 25,754,403</u>	<u>\$ 29,861,983</u>

2015	2016 ²	2017 ²	2018 ²	2019 ²	2020
\$ 21,041,197	\$ 25,657,252	\$ 27,784,161	\$ 30,616,208	\$ 34,151,304	\$ 38,015,134
635,000	435,000	225,000	-	8,396,901	8,153,151
<u>\$ 20,406,197</u>	<u>\$ 25,222,252</u>	<u>\$ 27,559,161</u>	<u>\$ 30,616,208</u>	<u>\$ 25,754,403</u>	<u>\$ 29,861,983</u>

3.0%	1.7%	0.8%	0.0%	24.6%	21.4%
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CITY OF AVONDALE, ARIZONA
AVONDALE WATER AND SEWER SYSTEMS PLEDGED REVENUE COVERAGE
LAST TEN FISCAL YEARS

	2011	2012	2013	2014
Total Operating Revenues ¹	\$ 18,416,763	\$ 19,984,828	\$ 19,715,295	\$ 20,231,533
Total Operating Expenses ²	14,591,625	13,850,258	14,301,632	14,321,784
Net Operating Income	<u>3,825,138</u>	<u>6,134,570</u>	<u>5,413,663</u>	<u>5,909,749</u>
Other Revenues	<u>874,992</u>	<u>633,797</u>	<u>376,262</u>	<u>928,994</u>
Net Revenues Before Debt Service	<u>\$ 4,700,130</u>	<u>\$ 6,768,367</u>	<u>\$ 5,789,925</u>	<u>\$ 6,838,743</u>
Debt Service ³	\$ 2,193,686	\$ 2,287,400	\$ 1,723,741	\$ 578,600
Debt Service Coverage	2.14	2.96	3.36	11.82

¹ Includes all water and sewer operating revenues.

² Excludes depreciation and interest expenses.

³ Debt service includes all bonds having a water and sewer system revenue pledge.

Note: See Note 8 - Long-term Obligations on pages 74 to 79 for additional detailed information on the City's long-term debt and pledged revenues.

Source: City records

SCHEDULE 13

2015	2016	2017	2018	2019	2020
\$ 19,580,966	\$ 21,267,916	\$ 23,838,505	\$ 26,289,355	\$ 26,769,958	\$ 26,289,355
14,030,221	13,969,692	14,413,815	13,875,307	12,239,449	13,505,847
5,550,745	7,298,224	9,424,690	12,414,048	14,530,509	12,783,508
1,560,864	3,791,014	4,186,861	4,491,307	4,277,594	6,212,953
\$ 7,111,609	\$ 11,089,238	\$ 13,611,551	\$ 16,905,355	\$ 18,808,103	\$ 18,996,461
\$ 575,100	\$ 576,300	\$ 1,166,883	\$ 1,347,593	\$ 1,281,404	\$ 1,140,234
12.37	19.24	11.66	12.54	14.68	23.41

**CITY OF AVONDALE, ARIZONA
ACTUAL EXCISE TAX REVENUES
LAST TEN FISCAL YEARS**

<u>Source</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
City Sales Tax	\$ 30,079,230	\$ 32,639,353	\$ 35,455,829	\$ 37,387,063
State Sales Tax	5,351,475	5,957,260	6,240,221	6,635,966
State Revenue Sharing	6,750,611	6,434,543	7,787,548	8,497,693
Utility and Cable Franchise Fees	1,095,000	1,096,920	1,101,693	1,132,811
Licenses and Permits	810,508	827,949	1,041,295	846,554
Fines and Forfeitures	1,032,246	1,047,582	1,166,102	1,000,841
Totals	<u>\$ 45,119,070</u>	<u>\$ 48,003,607</u>	<u>\$ 52,792,688</u>	<u>\$ 55,500,928</u>

¹ This schedule has been presented to meet the City's ongoing debt disclosure requirements.

Source: City records.

SCHEDULE 14

<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
\$ 40,533,299	\$ 43,026,818	\$ 46,288,365	\$ 49,355,518	\$ 52,003,028	\$ 55,933,503
6,967,295	7,217,550	7,402,225	7,970,742	8,467,056	8,884,163
9,229,081	9,179,045	9,871,106	10,265,600	10,175,417	11,099,709
1,150,766	1,090,134	1,135,350	1,256,448	1,223,385	1,136,532
1,263,670	1,580,691	2,652,563	3,202,591	2,795,566	3,353,121
1,208,797	1,105,057	937,816	1,095,068	1,102,503	993,526
<u>\$ 60,352,908</u>	<u>\$ 63,199,295</u>	<u>\$ 68,287,425</u>	<u>\$ 73,145,967</u>	<u>\$ 75,766,955</u>	<u>\$ 81,400,554</u>

CITY OF AVONDALE, ARIZONA
RATIOS OF GENERAL BONDED DEBT OUTSTANDING
LAST TEN FISCAL YEARS

SCHEDULE 15

Fiscal Year	Property Assessed Value ^{1,2}	General Obligation Bonds ⁴	Less: Amounts Available in Debt Service Fund	Net General Obligation Bonded Debt ⁴	Percentage of Net Bonded Debt to Estimated Actual Taxable Value of Property	Per Capita ³
2020	\$ 434,094,952	\$ 42,302,894	\$ 2,683,477	\$ 39,619,417	9.13 %	480
2019	398,288,948	44,784,665	2,345,992	42,438,673	10.66	514
2018	370,922,156	23,999,105	2,683,477	21,315,628	5.75	261
2017	349,102,604	22,315,363	218,803	22,096,560	6.33	276
2016	337,158,512	24,761,775	555,127	24,206,648	7.18	307
2015	350,686,613	26,539,823	182,462	26,357,361	7.52	338
2014	314,975,684	28,597,872	52,625	28,545,247	9.06	368
2013	345,672,132	31,595,918	1,158,775	30,437,143	8.81	385
2012	402,403,658	34,448,966	3,126,687	31,322,279	7.78	400
2011	524,305,349	37,237,014	4,343,222	32,893,792	6.27	425

¹ Prior to FY 2016, secondary assessed property value was used for secondary ad valorem taxes levied for debt service. Beginning in FY 2016, with a voter-approved Constitutional amendment, secondary ad valorem taxes are now levied on limited assessed property value.

² See Assessed Value, Estimated Actual Value and Assessment Ratios of Taxable Property Schedule on page 132 for property assessed valuation data.

³ See Demographics and Economic Statistics Schedule on page 156 for population data.

⁴ Bonds amounts are presented net of unamortized discounts and premiums.

Source: Maricopa County Assessor's Office and Arizona Department of Revenue, *Abstract of the Assessment Role (1999-2016)* and city records.

CITY OF AVONDALE, ARIZONA
DIRECT AND OVERLAPPING GOVERNMENTAL ACTIVITIES DEBT
LAST TEN FISCAL YEARS
(AMOUNTS EXPRESSED IN THOUSANDS)

SCHEDULE 16

Governmental Unit	Debt Outstanding ²	Proportion Applicable to the City ³	
		Approximate Percent	Net Debt Amount
Overlapping debt—General obligation bonded debt:			
State of Arizona	None	0.66	None
Maricopa County	None	1.01	None
Maricopa County Community College District	\$ 250,065	1.01	\$ 2,526
Maricopa County Special Health Care District	429,125	1.01	4,334
Tolleson Elementary School District No. 17	24,320	8.61	2,094
Avondale Elementary School District No. 44	33,510	14.13	4,735
Littleton Elementary School District No. 65	24,975	59.68	14,905
Litchfield Elementary School District No. 79	41,220	9.69	3,994
Pendergast Elementary School District No. 92	42,225	32	13,326
Agua Fria Union High School District No. 216	132,210	11.08	14,649
Tolleson Union High School District No. 214	169,815	23.09	39,210
Western Maricopa Education Center District No. 402	157,075	2.73	4,288
Total overlapping repaid with property taxes			104,062
Direct Debt—City of Avondale:			
General Obligation Bonded Debt	42,303	100.00	42,303
Pledged Revenue Obligations	23,884	100.00	13,788
Capital Lease	4,088	100.00	4,088
Total Direct Debt			60,179
Total Direct and Overlapping Debt			\$ 164,241

¹ Overlapping governments are those that coincide, at least in part, with the geographic boundaries of the City of Avondale. This schedule estimates the portion of outstanding debt of those overlapping governments that is borne by the residents and businesses of the City. This process recognizes that, when considering a City's ability to issue and repay long-term debt, the entire debt burden borne by residents and business should be taken into account. However, this does not imply that every taxpayer is a resident, and therefore responsible for repaying the debt of each overlapping government.

² General obligation bonded debt does not include outstanding principal amounts of certificates of participation, revenue obligations, loan obligations, improvement bonds, or other debt not secured by ad valorem property taxes. Includes total stated principal amount of general obligation bonds outstanding, however, does not include presently authorized but unissued general obligation bonds of such jurisdictions which may be issued in the future as indicated in the following table. Additional bonds may be authorized by voters within overlapping jurisdictions pursuant to future elections. Direct bonded debt is presented net of unamortized bond discounts and premiums.

³ Proportion applicable to the City for overlapping debt was provided by Stifel, Nicolaus & Company, Incorporated.

Source: The various entities, Property Tax Rates and Assessed Values, Arizona Tax Research Association, Treasurer and Assessor of Maricopa County records, and city records.



**CITY OF AVONDALE, ARIZONA
SOURCES OF THE WATER SYSTEM
LAST NINE CALENDAR YEARS**

SCHEDULE 17

Legal Availability (Acre-Feet)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Central Arizona Project (CAP) ²	5,416	5,416	5,416	5,416	5,416	5,416	5,416	5,416	5,416
Salt River Project (SRP) ³	15,913	15,950	15,950	16,030	15,364	15,364	15,394	15,269	15,123
City-owned wells ⁴	35,779	35,779	35,779	35,779	35,779	35,779	35,779	35,779	35,779
Reclaimed water delivered to City's underground storage facility (USF) ⁵	3,830	6,131	6,131	5,766	5,616	5,616	5,856	5,831	5,267
Underground Storage Facility (USF) ⁶	15,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
	<u>75,938</u>	<u>83,276</u>	<u>83,276</u>	<u>82,991</u>	<u>82,175</u>	<u>82,175</u>	<u>82,445</u>	<u>82,295</u>	<u>81,585</u>
Volume Produced (Acre-Feet)									
Central Arizona Project (CAP) ⁷	6,648	5,416	5,416	5,380	5,416	5,416	5,383	5,416	5,416
Salt River Project (SRP) ⁸	5,724	6,482	6,204	3,712	5,855	5,855	6,117	7,080	7,200
City-owned wells ⁹	14,463	14,393	13,177	13,727	13,974	13,974	14,056	14,044	13,955
Reclaimed water delivered to City's underground storage facility (USF) ¹⁰	2,092	4,308	5,695	4,808	5,616	5,616	5,856	5,831	5,267
Underground Storage Facility (USF) ¹¹	12,121	10,790	11,936	9,533	11,471	11,471	11,973	14,566	9,000
	<u>41,048</u>	<u>41,389</u>	<u>42,428</u>	<u>37,160</u>	<u>42,332</u>	<u>42,332</u>	<u>43,385</u>	<u>46,937</u>	<u>40,838</u>
Volume Produced (Gallons in Millions)									
Central Arizona Project (CAP)	2,166	1,765	1,765	1,753	1,765	1,765	1,754	1,765	1,765
Salt River Project (SRP)	1,865	2,112	2,022	1,210	1,907	1,907	1,993	2,307	2,346
City-owned wells	4,713	4,690	4,294	4,473	4,553	4,553	4,580	4,576	4,547
Reclaimed water delivered to City's underground storage facility (USF)	682	1,404	1,856	1,567	1,830	1,830	1,908	1,900	1,716
Underground Storage Facility (USF)	3,950	3,515	3,889	3,106	3,737	3,737	3,901	4,746	2,933
	<u>13,376</u>	<u>13,486</u>	<u>13,826</u>	<u>12,109</u>	<u>13,792</u>	<u>13,792</u>	<u>14,136</u>	<u>15,294</u>	<u>13,307</u>

¹ This schedule has been presented to meet the City's ongoing debt disclosure requirements beginning in fiscal year 2012 so only seven years are presented. The City monitors and reports its water rights and related activities on a calendar year basis. This schedule is presented on the same basis.

² Includes the City's standard CAP Municipal and Industrial Contract Allocation.

³ According to SRP records, there were 5,041 acres of land legally eligible to receive SRP allocation of 3.3 acre-feet per acre.

⁴ Represents the capacity of active wells if run 24 hours a day, 365 days a year. The City can legally pump as much as its wells can produce.

⁵ Amount of water treated by the Wolf Water Resource Center.

⁶ Permitted capacity of the City's Underground Storage Facility.

⁷ Includes additional CAP allocation received from SRP as an exchange.

⁸ The City can only take the amount to satisfy their SRP customer demand.

⁹ Amount recovered from one or more of the City's wells for delivery to customers.

¹⁰ Amount of water that was recharged at the City's USF.

¹¹ Amount of water (surface and reclaimed) delivered to the City's USF.

Source: City Public Works Department.

CITY OF AVONDALE, ARIZONA
SCHEDULE OF WATER AND SEWER SALES, NUMBER OF CUSTOMERS,
AND OTHER FEES AND REVENUE
LAST TEN FISCAL YEARS

<u>Water System</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
Water Sales ²				
Residential	\$ 6,913,307	\$ 7,473,951	\$ 7,499,382	\$ 7,628,120
Commercial	3,888,735	4,204,097	4,163,085	4,233,400
Total	<u>\$ 10,802,042</u>	<u>\$ 11,678,048</u>	<u>\$ 11,662,467</u>	<u>\$ 11,861,520</u>
Number of Water Customers ³				
Residential	\$ 20,051	\$ 20,561	\$ 20,719	\$ 20,804
Commercial ⁴	1,304	1,342	1,346	1,436
Total	<u>\$ 21,355</u>	<u>\$ 21,903</u>	<u>\$ 22,065</u>	<u>\$ 22,240</u>
Other Fees and Revenue				
Meter Installation	\$ 20,290	\$ 13,620	\$ 17,210	\$ 26,640
Turn-on Fees	498,511	520,560	479,091	479,471
Interest Earnings	91,916	105,241	81,571	66,008
Total	<u>\$ 610,717</u>	<u>\$ 639,421</u>	<u>\$ 577,872</u>	<u>\$ 572,119</u>
<u>Sewer System</u>				
Sewer Sales ²				
Residential	\$ 6,639,027	\$ 6,846,885	\$ 6,946,342	\$ 7,042,305
Commercial	820,553	846,244	793,124	842,036
Total	<u>\$ 7,459,580</u>	<u>\$ 7,693,129</u>	<u>\$ 7,739,466</u>	<u>\$ 7,884,341</u>
Number of Sewer Customers ³				
Residential	\$ 20,048	\$ 20,316	\$ 20,476	\$ 20,640
Commercial ⁴	1,244	1,287	1,288	1,295
Total	<u>\$ 21,292</u>	<u>\$ 21,603</u>	<u>\$ 21,764</u>	<u>\$ 21,935</u>
Other Fees and Revenue				
Tap Fees	\$ 12,900	\$ 5,100	\$ 9,900	\$ 15,600
Interest Earnings	69,657	86,915	57,036	54,127
Total	<u>\$ 82,557</u>	<u>\$ 92,015</u>	<u>\$ 66,936</u>	<u>\$ 69,727</u>

¹ This schedule has been presented to meet the City's ongoing debt disclosure

² Sales revenues presented in this schedule may differ from enterprise fund revenues due to

³ Customer counts reflect the number of unique customer accounts billed during the year.

⁴ Commercial customers include industrial and multi-unit customers. The City imposes the

Source: City records.

SCHEDULE 18

2015	2016	2017	2018	2019	2020
\$ 7,267,073	\$ 8,049,255	\$ 8,677,097	\$ 9,324,192	\$ 9,017,975	\$ 9,738,920
3,885,595	4,334,215	5,255,829	5,589,036	5,051,352	5,546,702
<u>\$ 11,152,668</u>	<u>\$ 12,383,470</u>	<u>\$ 13,932,926</u>	<u>\$ 14,913,228</u>	<u>\$ 14,069,328</u>	<u>\$ 15,285,622</u>
\$ 21,053	\$ 21,260	\$ 26,032	\$ 25,954	\$ 22,136	\$ 22,258
1,359	1,353	1,343	1,352	1,228	1,468
<u>\$ 22,412</u>	<u>\$ 22,613</u>	<u>\$ 27,375</u>	<u>\$ 27,306</u>	<u>\$ 23,364</u>	<u>\$ 23,726</u>
\$ 45,060	\$ 124,283	\$ 135,593	\$ 132,060	\$ 58,040	\$ 139,789
455,755	425,777	457,448	414,507	391,277	340,153
148,629	126,072	208,814	411,330	713,287	831,870
<u>\$ 649,444</u>	<u>\$ 676,132</u>	<u>\$ 801,855</u>	<u>\$ 957,897</u>	<u>\$ 1,162,604</u>	<u>\$ 1,311,812</u>
\$ 7,025,034	\$ 7,413,869	\$ 8,081,505	\$ 8,573,843	\$ 9,176,311	\$ 9,040,228
885,157	916,321	894,066	966,950	992,668	1,022,316
<u>\$ 7,910,191</u>	<u>\$ 8,330,190</u>	<u>\$ 8,975,571</u>	<u>\$ 9,540,793</u>	<u>\$ 10,168,979</u>	<u>\$ 10,062,544</u>
\$ 20,806	\$ 21,012	\$ 25,187	\$ 25,261	\$ 24,999	\$ 22,466
1,296	1,280	618	631	653	832
<u>\$ 22,102</u>	<u>\$ 22,292</u>	<u>\$ 25,805</u>	<u>\$ 25,892</u>	<u>\$ 25,652</u>	<u>\$ 23,298</u>
\$ 23,400	\$ 72,300	\$ 81,143	\$ 80,400	\$ 30,000	\$ 71,500
58,242	40,392	60,775	129,569	265,385	324,991
<u>\$ 81,642</u>	<u>\$ 112,692</u>	<u>\$ 141,918</u>	<u>\$ 209,969</u>	<u>\$ 295,385</u>	<u>\$ 396,491</u>

**CITY OF AVONDALE, ARIZONA
CURRENT YEAR STATISTICS
LAST NINE FISCAL YEARS**

Statistics	2012	2013	2014
General Obligation Bonds Outstanding	\$ 34,385,000	\$ 31,545,000	\$ 28,560,000
Water and Sewer System Revenue Obligations Outstanding	8,200,719	6,129,507	4,490,978
Street and Highway User Revenue Bonded Debt Outstanding	2,140,000	1,805,000	1,455,000
Excise Tax Revenue Bonded Debt Outstanding	57,329,000	472,585,492	45,479,021
Net Limited Assessed Property Value (formerly referred to as Primary Assessed Valuation)	400,801,769	344,925,286	311,630,868
Net Full Cash Assessed Value (formerly referred to as Secondary Assessed Valuation)	402,403,958	345,672,132	314,975,684
Estimated Net Full Cash Value	3,033,609,972	2,627,923,084	2,417,444,609

¹ This schedule has been presented to meet the City's ongoing debt disclosure requirements beginning in fiscal year 2012 so only nine years are presented.

Source: City records and State of Arizona Department of Revenue, *Abstract of the Assessment Roll*.

SCHEDULE 19

2015	2016	2017	2018	2019	2020
\$ 26,515,000	\$ 24,750,000	\$ 22,310,000	\$ 21,740,000	\$ 39,940,000	\$ 37,695,000
3,980,130	3,456,965	9,915,000	9,080,000	8,270,000	7,580,000
1,095,000	720,000	330,000			
41,559,868	37,263,034	28,175,000	23,045,001	17,975,001	22,741,001
327,955,701	337,158,512	349,102,604	370,922,156	398,288,948	434,094,952
350,686,613	427,620,861	463,069,349	510,270,136	569,188,401	633,585,560
2,779,735,083	3,490,967,838	3,812,520,675	4,202,837,020	4,728,955,006	5,238,398,192

**CITY OF AVONDALE, ARIZONA
DEMOGRAPHIC AND ECONOMIC STATISTICS
LAST TEN FISCAL YEARS**

SCHEDULE 20

Fiscal Year	Population ⁴	Personal Income (in thousands) ¹	Per Capita Personal Income ¹	Estrella Mountain Community College Enrollment ²	City of Avondale Unemployment Rate ³	State of Arizona Unemployment Rate ³
2020	84,595	\$ -	\$ -	\$ 15,209	5.8 %	6.2 %
2019	82,605	3,939,763	47,694	15,061	4.5	4.9
2018	81,621	3,719,714	45,573	15,385	4.4	4.7
2017	80,073	3,594,077	44,885	14,811	4.6	5.1
2016	78,885	3,317,351	42,053	14,404	5.2	5.8
2015	78,090	3,256,665	41,704	13,915	6.0	6.4
2014	77,511	3,267,554	42,156	14,507	7.0	7.5
2013	79,132	3,162,590	39,966	14,444	7.9	8.0
2012	78,256	2,778,566	35,506	14,562	9.1	8.9
2011	77,388	2,818,267	36,417	15,093	8.4	9.6

¹ Per Capita Personal Income is based on data obtained from the U.S. Department of Commerce, Bureau of Economic Analysis for Maricopa County. Personal Income (in thousands) is an estimate based on the population, multiplied by the per Capita Personal Income.

² Obtained from Estrella Mountain Community College.

³ Based on data obtained from the U.S. Department of Labor, Bureau of Labor Statistics and Arizona Department of Economic Security.

⁴ Based on data obtained from the Maricopa Association of Governments, U.S. Census Bureau, and Arizona Department of Administration Office of Employment & Population Statistics.

**CITY OF AVONDALE, ARIZONA
PRINCIPAL EMPLOYERS
CURRENT YEAR AND NINE YEARS AGO**

SCHEDULE 21

Employer	2020				2011		
	Number of Employees	Rank	Percentage of Total City Employment		Number of Employees	Rank	Percentage of Total City Employment
City of Avondale	570	1	1.22 %		530	5	1.33
Frys Food Stores	470	2	1.01		411	2	1.03
Avondale Elementary School District 44	450	3	0.97		382	4	0.96
Akos	400	4	0.86		-	6	-
Walmart	370	5	0.79		300	-	0.75
Tolleson Union High School District 214	350	6	0.75		357	-	0.90
Earnhardt Auto Center	320	7	0.69		-	7	-
Littleton Elementary School District 65	310	8	0.67		247	9	0.62
Costco Wholesale	310	9	0.67		-	-	-
Maricopa County Community College District	290	10	0.62		-	-	-
Roman Catholic Church of the Diocese of Phoenix	-		-		400	1	1.00
Agua Fria Union High School District 216	-		-		295	3	0.74
Pendergast Elementary School District No. 92	-		-		249	8	0.63
Avondale Automotive INC	-		-		216	10	0.54
Total	<u>3,840</u>		<u>8.24 %</u>		<u>3,387</u>		<u>8.50 %</u>

Source: Maricopa Association of Governments Employer Database and U.S. Department of Labor, Bureau of Labor Statistics - MAG 2020 and 2011 Employer Database

CITY OF AVONDALE, ARIZONA
FULL-TIME EQUIVALENT CITY GOVERNMENT EMPLOYEES BY FUNCTION
LAST TEN FISCAL YEARS

Function	2011	2012	2013	2014	2015
General Government					
City Administration	10.0	10.0	9.0	9.0	11.0
Finance and Budget	28.5	28.5	28.5	28.5	28.5
City Court	13.0	13.0	13.0	13.0	13.0
Planning and Building Services	0.0	0.0	0.0	0.0	0.0
Other	36.2	36.2	28.0	40.0	40.0
Public Safety					
Police					
Officers	120.8	120.8	133.0	124.0	127.0
Civilians	46.0	46.0	37.0	47.0	45.0
Fire					
Firefighters and Officers	49.0	49.0	56.0	71.0	63.0
Civilians	8.0	8.0	3.0	3.0	11.0
Highways and Streets					
Engineering and Development Services	34.0	34.0	20.0	28.0	17.0
Maintenance	10.0	10.0	23.0	12.0	10.0
Health and Welfare	21.0	21.0	17.0	19.8	10.0
Economic and Community Development	3.0	3.0	9.0	4.0	4.0
Sanitation	19.0	19.0	21.2	18.0	35.8
Culture and Recreation	29.0	29.0	33.0	28.3	33.0
Water Resources	37.1	37.1	33.9	35.1	33.1
Sewer	18.9	18.9	20.9	20.9	21.1
Total	<u>483.5</u>	<u>483.5</u>	<u>485.5</u>	<u>501.5</u>	<u>502.5</u>

Source: City of Avondale, Arizona *Annual Budget and Financial Plan* for the applicable fiscal year.

SCHEDULE 22

2016	2017	2018	2019	2020
10.0	10.0	10.00	10.00	10.00
29.5	29.5	29.50	30.50	32.50
13.0	13.0	14.00	14.00	14.00
0.0	0.0	0.00	0.00	0.00
45.5	40.5	33.00	33.00	44.50
128.0	128.0	134.00	138.00	149.00
47.0	54.0	50.00	48.00	53.00
63.0	65.0	64.00	64.00	64.00
12.0	10.0	13.00	13.00	14.00
16.0	29.0	31.00	31.00	33.00
12.0	9.3	16.90	18.90	18.90
10.0	24.5	22.50	22.50	40.25
4.0	4.0	4.00	5.00	5.00
36.8	20.3	20.50	21.50	21.50
26.3	27.8	27.75	34.75	33.50
33.1	34.5	33.80	33.80	33.30
21.1	21.5	21.80	21.80	22.30
<u>507.3</u>	<u>520.9</u>	<u>525.75</u>	<u>539.75</u>	<u>588.75</u>

CITY OF AVONDALE, ARIZONA
FULL-TIME EQUIVALENT CITY GOVERNMENT EMPLOYEES BY FUNCTION (CONTINUED)
LAST TEN FISCAL YEARS

Function	2011	2012	2013	2014
Police				
Calls for Service	78,961	77,800	80,901	73,718
Citations	6,487	7,348	6,461	4,930
Physical Arrests	4,234	3,461	3,727	3,792
Fire				
Number of Emergency Responses	6,057	6,601	8,307	8,471
Inspections	3,296	3,041	3,286	3,265
Number of Fires Extinguished	451	241	233	245
Sanitation				
Refuse Collected (Tons per Day)	141	132	133	134
Recyclables Collected (Tons per Day)	52	48	44	46
Water				
New Connections	23,251	23,616	23,839	23,058
Water Mains Breaks	10	14	13	6
Average Daily Consumption (Thousands of Gallons)	11,300	13,992	13,694	13,835
Wastewater				
Average Daily Sewage Treatment (Thousands of Gallons)	5,159	5,310	5,740	6,092

Source: City departments.

SCHEDULE 23

2015	2016	2017	2018	2019	2020
76,687	74,491	76,704	69,878	67,581	67,656
7,165	5,238	2,497	2,964	3,148	2,928
4,635	4,418	4,355	4,186	3,431	3,384
9,861	10,004	10,578	11,532	10,670	-
3,529	3,384	2,151	2,422	2,516	843
416	557	403	403	1,361	-
143	145	146	146	147	-
47	47	49	49	49	-
23,150	24,560	27,375	27,306	24,287	24,287
7	9	-	-	6	-
12,849	12,863	13,698	13,497	11,867	11,131
5,810	5,627	5,718	5,711	5,741	-

**CITY OF AVONDALE, ARIZONA
CAPITAL ASSET STATISTICS BY FUNCTION
LAST TEN FISCAL YEARS**

Function	2011	2012	2013	2014
Public Safety				
Police:				
Stations	4	5	5	5
Patrol Units	116	101	101	102
Fire Stations				
Stations	3	3	3	4
Fire Trucks	7	7	8	9
Fire Vehicles (excl. Fire Trucks)	16	16	14	18
Sanitation				
Collection Trucks	18	18	20	17
Highways and Streets				
Streets (Miles)	285	286	286	294
Streetlights	7,739	7,771	7,829	7,829
Traffic Signals	46	46	46	47
Culture and Recreation				
Parks Acreage	265	265	265	265
Parks	11	11	11	11
Racquetball Courts	-	-	-	-
Basketball Courts	18	18	18	18
Volleyball Courts	-	-	-	-
Baseball Fields	4	4	4	4
Softball Fields	7	7	7	7
Soccer Fields	14	14	14	14
Swimming Pools	-	-	-	-
Tennis Courts	2	2	2	2
Community Centers	1	1	1	1
Dog Park	1	1	1	1
Playgrounds	8	8	8	8
Amphitheatre	2	2	2	2
Ramadas	12	12	12	12
Football Field	1	1	1	1
Splash Pad	-	-	-	-
Pickleball Courts	-	-	-	-
Water				
Number of Service Connections	23,251	23,616	23,839	23,058
Water Mains (Miles)	330	330	330	450
Fire Hydrants	2,711	2,714	2,719	2,728
Sewer				
Number of Service Connections	21,479	21,852	21,979	22,042
Sanitary Sewers (Miles)	235	235	235	237
Storm Sewers (Miles)	37	39	39	60
Wastewater				
Treatment Plants	1	1	1	1

Source: City departments.

SCHEDULE 24

2015	2016	2017	2018	2019	2020
5	5	5	5	5	5
107	108	116	111	113	110
4	4	4	4	4	4
10	10	10	11	11	11
12	12	18	14	19	17
22	19	19	18	18	18
294	266	283	261	309	323
7,843	7,958	7,964	7,964	8,113	8,114
47	48	47	49	48	49
265	265	265	265	310	150
11	11	11	11	11	10
-	-	-	-	-	-
18	18	18	18	20	11
2	2	2	2	2	2
4	4	4	4	6	6
7	7	7	7	7	5
14	12	12	12	12	9
-	-	-	-	-	-
2	2	2	2	2	2
1	1	1	1	1	1
1	1	1	1	2	2
8	8	8	8	9	10
2	2	2	2	2	2
12	15	15	15	20	24
1	1	1	1	1	1
-	1	1	1	2	2
-	4	4	4	8	4
23,150	23,276	23,610	24,259	24,287	24,203
451	444	335	444	448	338
2,733	2,733	2,831	2,752	2,764	2,848
22,125	22,130	22,683	22,162	22,199	23,013
237	237	243	243	243	243
60	58	58	35	36	36
1	1	1	1	1	1





CliftonLarsonAllen LLP
CLAconnect.com

INDEPENDENT ACCOUNTANTS' REPORT

The Honorable Mayor and the City Council
City of Avondale, Arizona
Avondale, Arizona

We have examined the City of Avondale, Arizona's (City) compliance as to whether highway user revenue fund monies received by the City pursuant to Arizona Revised Statutes Title 28, Chapter 18, Article 2 and any other dedicated state transportation revenues received by the City are being used solely for the authorized transportation purposes during the fiscal year ended June 30, 2020. Management of the City of Avondale, Arizona is responsible for the City's compliance with the specified requirements. Our responsibility is to express an opinion on the City's compliance with the specified requirements based on our examination.

Our examination was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants. Those standards require that we plan and perform the examination to obtain reasonable assurance about whether the City complied, in all material respects, with the specified requirements referenced above. An examination involves performing procedures to obtain evidence about whether the City complied with the specified requirements. The nature, timing, and extent of the procedures selected depend on our judgment, including an assessment of the risks of material noncompliance, whether due to fraud or error. We believe that the evidence we obtained is sufficient and appropriate to provide a reasonable basis for our opinion.

Our examination does not provide a legal determination on the City's compliance with specified requirements.

In our opinion, the City of Avondale, Arizona complied, in all material respects, with the aforementioned requirements for the fiscal year ended June 30, 2020.

This report is intended solely for the information and use of the Mayor, City Council, management, and the Arizona Auditor General and is not intended to be and should not be used by anyone other than these specified parties.



CliftonLarsonAllen LLP

Phoenix, Arizona
December 22, 2020

CITY COUNCIL REPORT

SUBJECT: Sixth Amendment to Job Order Contract - Schofield Civil Construction and Budget Transfer Request - Riley Lift Station Relocation

MEETING DATE: 1/19/2021

TO: Mayor and Council

FROM: Kirk Beaty, Public Works Director, (623) 333-4417

THROUGH: Gina Montes, Assistant City Manager, (623) 333-1012

REVIEWED: Charles A. Montoya, City Manager, (623) 333-1016

PURPOSE:

City Council will consider a request to approve an amendment to job order contract number 19-097C with Schofield Civil Construction, LLC, adding job order number six (6) for the construction of the Riley Drive Wastewater Lift Station in the amount of \$738,611; approve a budget amendment in the amount of \$340,000; and authorize the Mayor, or City Manager and City Clerk to execute the necessary documents. The Council will take appropriate action.

BACKGROUND:

The Riley Lift Station is a small package lift station currently located in the south sidewalk on Riley Drive and east of Dysart Road. (See Vicinity Map.) The new lift station is an upgrade to meet current standards and allows the existing lift station to be removed from the public sidewalk providing unobstructed pedestrian access.

Original funding for this project was approved in the Capital Improvement Plan with \$594,500 for design, property acquisition, and construction. On July 22, 2019 the City Council approved a Professional Services Agreement 19-175C with GHD, Inc. to provide professional consulting and engineering services related to the design and construction of the Riley Wastewater Lift Station. On April 20, 2020 Council adopted Ordinance 2013--0420 -for the Acquisition of Real Property and Temporary Construction Easement for the relocation site.

DISCUSSION:

After a competitive procurement process, the City of Peoria entered into Contract No. ACON20418, dated June 01, 2018 for the Schofield Civil Construction, LLC to provide job order contracting services for water and wastewater treatment and remote facilities projects. On April 30, 2019, the City of Avondale and the Job Order Contractor entered into a Cooperative Purchasing Agreement 19-097C, based upon the Peoria Contract, for Job Order Contractor to provide Citywide water and wastewater treatment job order contracting work. The agreement contemplated the City would request proposals for job orders as necessary.

On November 20, 2020 the City received a Job Order Cost Proposal from Schofield Civil Construction, LLC for Construction Services for Riley Lift Station Project. The Schofield proposal totaled \$762,611. The City is

opting for the deductive bid alternative reducing the contract by \$24,000 and bringing the final contract total to \$738,611.

The new total estimated cost for the Riley Lift Station Project including design services, construction, construction permits, communications, land acquisition is \$928,000.

\$928,000 Project Total
- \$594,500 Approved Funding
\$333,500 Funding Needed

The work for this contract shall include the following:

- Lift Station construction including wet well, pumps, piping, valving, electrical controls, and instrumentation
- Pressurized sanitary sewer force-main from the lift station to the discharge manhole in Riley Drive
- Gravity sewer inlet construction including sewer main and manhole including pavement and sidewalk repair as required
- Site improvements to include site grading, landscape rock placement, wet well excavation, water service, new electrical service, site light, conduit into site for future fiber optic connection, and fenced/gated block wall enclosure.

The contract allows for a construction period of 130 calendar days from Notice to Proceed, with an anticipated completion date in June of 2021.

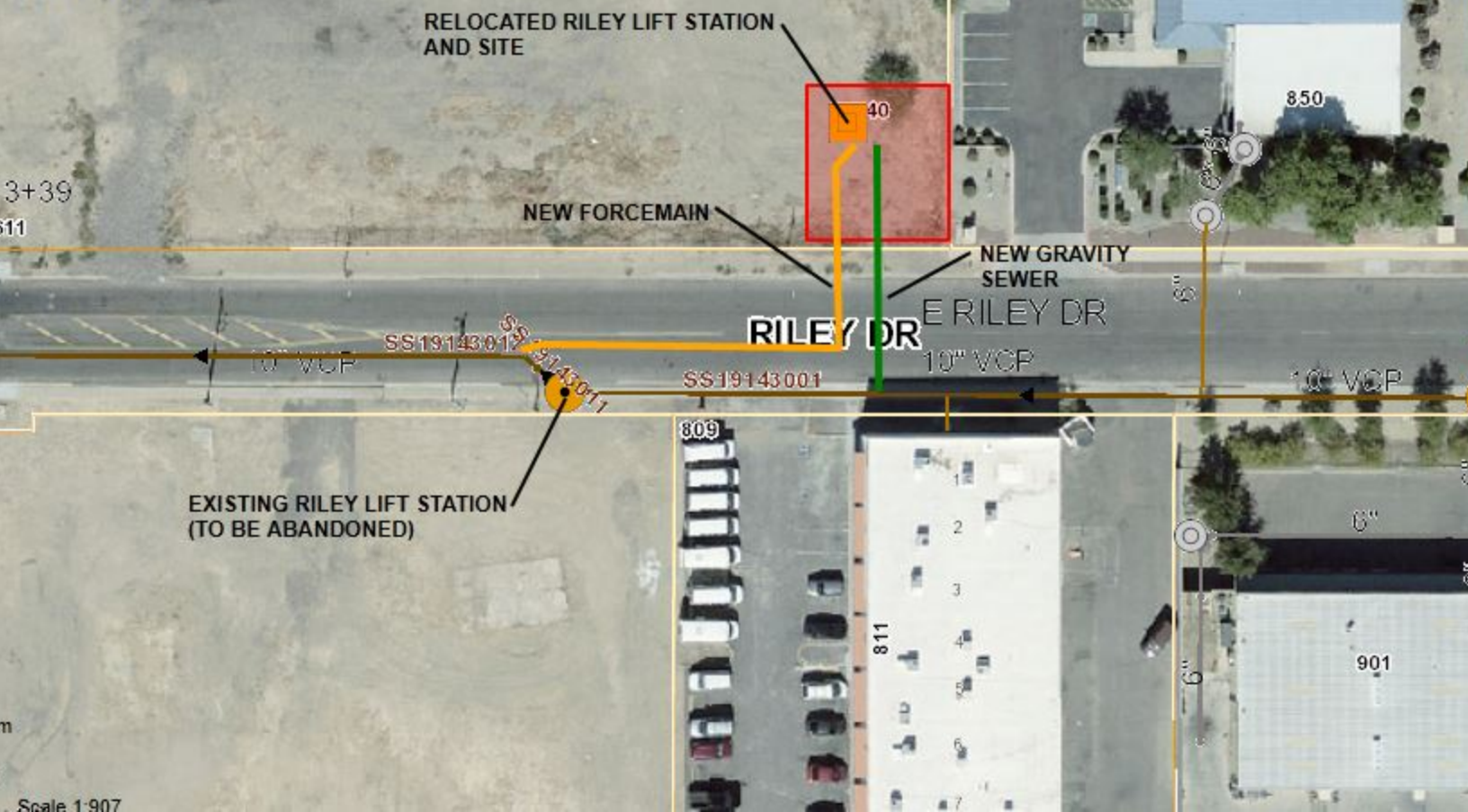
BUDGET IMPACT:

Project budget authority of \$594,500 is currently available in the approved Capital Project line item 513-1391-00-8610, Relocate Riley Lift Station. As this is a high priority project, staff is requesting that \$340,000 be moved from 513--1356--00--8610, Large Diameter Sewer Repair, to appropriate this project.

RECOMMENDATION:

Staff recommends that the City Council approve the amendment to job order contract number 19-097C with Schofield Civil Construction, LLC, adding job order number six (6) for the construction of the Riley Drive Wastewater Lift Station in the amount of \$738,611; approve a budget amendment of \$340,000 from the Large Diameter Sewer Replace project; and authorize the Mayor, or City Manager and City Clerk to execute the necessary documents.

RILEY LIFT STATION VICINITY MAP



**JOB ORDER SIX
TO
COOPERATIVE PURCHASING AGREEMENT
BETWEEN
THE CITY OF AVONDALE
AND
SCHOFIELD CIVIL CONSTRUCTION**

THIS JOB ORDER SIX (this "Job Order") is entered into as of the date signed below between the City of Avondale, an Arizona municipal corporation (the "City"), and Schofield Civil Construction, a(n) Arizona limited liability company ("Job Order Contractor").

RECITALS:

A. After a competitive procurement process, the City of Peoria, Arizona (the "Peoria") entered into Contract No. A CON20418, dated June 1, 2018 (the "Peoria Contract"), for the Contractor to provide job order contracting services for water and wastewater treatment and remote facilities projects.

B. The City and the Job Order Contractor entered into a Cooperative Purchasing Agreement 19-097C dated April 30, 2019 (the "Agreement"), based upon the Peoria Contract, for Job Order Contractor to provide Citywide water and wastewater treatment job order contracting work. All capitalized terms not otherwise defined in this Job Order have the same meanings as contained in the Agreement.

C. The Agreement contemplated the City would request proposals for job orders when Work was deemed necessary.

D. The City has requested, and Job Order Contractor has provided, a Proposal to complete Riley Drive Wastewater Lift Station within the City of Avondale, as further defined in the scope of work attached hereto as Exhibit I and incorporated herein by reference.

E. Upon acceptance by the City, this Job Order will become part of the Agreement and shall be attached thereto as part of Exhibit B.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing introduction and recitals, which are incorporated herein by reference, the following mutual covenants and conditions, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the City and the Job Order Contractor hereby agree as follows:

1. Scope of Work. Job Order Contractor will perform the Work in accordance with the specifications and drawings attached hereto as part of Exhibit 1.

2. Period of Performance and Work Schedule. The agreed-upon period of performance for the Work will be 130 (one hundred and thirty) Calendar Days from Notice to Proceed.

3. Compensation. The City shall pay Job Order Contractor an amount not to exceed \$738,611.00 for the Work and the deductive alternate line for generator at the rates set forth in the schedule of applicable unit prices, attached hereto as part of Exhibit 1.

4. Effect of Job Order. This Job Order shall have the effect of amending the AGREEMENT as set forth herein. The AGREEMENT is affirmed and ratified and, except as expressly modified herein, all terms and conditions of the AGREEMENT shall remain in full force and effect.

5. Non-Default. By executing this Job Order, the Job Order Contractor affirmatively asserts that (i) the City is not currently in default, nor has been in default at any time prior to this Job Order, under any of the terms or conditions of the JOC, including any Job Orders related thereto, and (ii) any and all Job Order Contractor claims, known and unknown, relating to the AGREEMENT or any related Job Order and existing on or before the date of this Job Order are forever waived.

6. Conflict of Interest. This Job Order and the Agreement may be canceled by the City pursuant to A.R.S. § 38-511.

[SIGNATURES ON FOLLOWING PAGES]

IN WITNESS WHEREOF, the parties hereto have executed this First Amendment as of the date and year first written above.

“City”

CITY OF AVONDALE,
an Arizona municipal corporation

Charles A. Montoya, City Manager

ATTEST:

Marcella Carrillo, City Clerk

“Job Order Contractor”

Schofield Civil Construction
an Arizona limited liability company

By: Levi Schofield
Levi Schofield (Dec 29, 2020 14:21 MST)

Name: Levi Schofield

Title: President

EXHIBIT 1
TO
JOB ORDER SIX
TO
COOPERATIVE PURCHASING AGREEMENT
BETWEEN
CITY OF AVONDALE
AND
SCHOFIELD CIVIL CONSTRUCTION

[Proposal]

See following pages.

SCHOFIELD

CIVIL CONSTRUCTION

November 20, 2020

Dean Pehrson, P.E.
Public Works Engineering Project Manager
City of Avondale
11465 W. Civic Center Dr., #120
Avondale, AZ 85323

Eddie Hawley
Schofield Civil Construction, LLC.
23025 N. 15th Ave. #205
Phoenix, AZ 85027

Project: Riley Drive Wastewater Lift Station

Subject: Riley Drive Wastewater Lift Station Cost Estimate

Mr. Pehrson,

Thank you for the opportunity to provide a Cost Estimate for the Riley Drive Wastewater Lift Station Project. Our Cost Estimate is based on the Design Drawings Dated: June 14, 2020 from GHD.

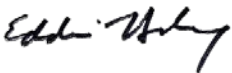
Total cost to for the Riley Drive Wastewater Lift Station is \$762,611 (seven hundred sixty two thousand and six hundred eleven dollars).

Attachments:

Job Order Cost Proposal, 3 pages
Avondale Price Sheet, 3 pages

Please do not hesitate to contact me with any questions.

Sincerely,



Eddie Hawley
Schofield Civil Construction, LLC.

Schofield Civil Construction LLC
23025 North 15th Avenue, Suite 205
Phoenix, AZ 85027
ROC 299090 A

Job Order Cost Proposal



CONTRACTOR NAME: **Schofield Civil Construction**

Contract Type: **Water & Wastewater Facilities Projects**

City Project No.: **SW 1391**

Job Order No.: **TBD**

Contractors Job No.: **TBD**

City Project Mgr.:

Prepared By: **Eddie Hawley**

Fee Type: **GMP**

Date: **11/19/2020**

Location: **Riley Dr. Wastewater Lift Station**

Revision:

Job Title:

Contract: **#19-097C**

Description of Work to be Performed (supporting information attached):

SECTION A: LABOR (inclusive of burden)

			Labor Cost	
Position	Unit	Quantity		Total
Project Manager	Hours	500.00	\$ 78.67	\$ 39,335.00
Estimator	Hours		\$ 78.67	\$ -
Project Engineer	Hours		\$ 47.31	\$ -
Admin	Hours		\$ 32.31	\$ -
Project Superintendent	Hours	200.00	\$ 61.73	\$ 12,346.00
Foreman	Hours	477.00	\$ 48.21	\$ 22,996.17
Equipment Operator	Hours	412.00	\$ 37.05	\$ 15,264.60
Craftsman	Hours	245.00	\$ 33.49	\$ 8,205.05
Skilled - Laborer	Hours	344.00	\$ 29.94	\$ 10,299.36
Laborer	Hours	173.00	\$ 24.02	\$ 4,155.46
<i>*Any emergency or T&M work that requires overtime will be billed at 1.5 times the listed Unit Prices.</i>				\$ 112,601.64

SECTION B: EQUIPMENT (supporting information attached, i.e. EquipmentWatch.com)

			Equipment Cost	
Item	Unit	Quantity	Unit Price	Total
Backhoe (420FIT)	Hours	14.00	\$ 46.78	\$ 654.92
Excavator (308E2)	Hours	47.00	\$ 56.82	\$ 2,670.54
Excavator (320)	Hours	121.00	\$ 83.90	\$ 10,151.90
Skidsteer (279D)	Hours	92.50	\$ 44.60	\$ 4,125.50
Loader (924)	Hours	153.50	\$ 62.07	\$ 9,527.75
Water Truck	Hours		\$ 55.83	\$ -
Water Wagon	Hours		\$ 16.64	\$ -
Compactor - Hand	Hours	38.50	\$ 6.36	\$ 244.86
Compactor - (BH/Ex Wheel)	Hours	109.00	\$ 5.91	\$ 644.19
ext. Reach Forklift (10K)	Hours		\$ 50.88	\$ -
ext. Reach Forklift (6K)	Hours		\$ 44.83	\$ -
Pickup Truck - Light Duty	Hours	588.00	\$ 13.16	\$ 7,738.08
Pickup Truck - 1 Ton	Hours	523.00	\$ 21.18	\$ 11,077.14
Small Tools & Supplies (Consumables)	Hours		\$ 5.50	\$ -
Portable Welder	Hours		\$ 5.80	\$ -
Shoring Box	Hours		\$ 15.00	\$ -
Subtotal Equipment Cost (B)				\$ 46,834.88

SECTION C: MATERIALS

Item	Unit	Quantity	Material Cost	
			Unit Price	Total
Anchor Bolts	LS	1.00	\$ 500.00	\$ 500.00
Aggregates	LS	1.00	\$ 9,492.50	\$ 9,492.50
Concretes	LS	1.00	\$ 27,225.00	\$ 27,225.00
Rebar / Formwork / Consumables	LS	1.00	\$ 3,236.00	\$ 3,236.00
Grout	LS	1.00	\$ 225.00	\$ 225.00
Pipe Quote	LS	1.00	\$ 53,030.00	\$ 53,030.00
Disposal	LS	1.00	\$ 12,850.00	\$ 12,850.00
				\$ -
				\$ -
Subtotal Material Cost (C)				\$ 106,558.50

SECTION D: SUBS & CONSULTANTS

Company	Description of Work to be Performed (Supporting quote & information attached)	Total Cost
Asphalt		\$ 8,580.00
Canopy		\$ 13,505.00
Coating		\$ 10,000.00
Electric		\$ 146,050.00
Gate		\$ 7,500.00
Masonry		\$ 31,250.00
Survey		\$ 9,000.00
QAQC		\$ 3,500.00
Traffic Control		\$ 10,000.00
Wet Well		\$ 20,412.00
Subtotal Subcontractors & Consultants (D)		\$ 259,797.00

SECTION E: RENTAL EQUIPMENT

Company	Description of Rental Equipment (Supporting quote & information attached)	Total Cost
concrete pump truck		\$ 4,000.00
345 Excavator		\$ 17,250.00
Vac Truck		\$ 2,000.00
Shoring		\$ 21,300.00
Roller		\$ 800.00
Drill Attachment		\$ 400.00
Subtotal Rental Equipment (E)		\$ 45,750.00

SECTION F: GENERAL CONDITIONS OF THE WORK

Item	Unit	Quantity	General Conditions Cost	
			Unit Price	Total
Mobilization / Demobilization	EW	1.00	\$ 6,000.00	\$ 6,000.00
Permits & Environmental Controls			\$ -	\$ -
Temporary Facilities & Controls	LS	1.00	\$ 4,000.00	\$ 4,000.00
Engineering / Testing	LS	1.00	\$ -	\$ -
Site Support			\$ -	\$ -
Miscellaneous / Other (3rd Party Utility Locate)	LS	1.00	\$ 555.00	\$ 555.00
Subtotal General Conditions (F)				\$ 10,555.00

OVERHEAD: 6.50% (% to be taken from matrix)

PROFIT: 8.50% (% to be taken from matrix)

Subtotal General Contractor Costs (A+C+E+F): \$ 275,465.14
O&P (15% of A+C+E+F): \$41,319.77
Subtotal General Contractor Costs (B): \$ 46,834.88
Total General Contractor Costs including O&P: \$ 363,619.79

Subtotal Subcontractor Costs (D) \$259,797.00
Subcontractor Profit (5% of D) \$12,989.85
Total Subcontractor Costs including O&P: \$272,786.85

TOTAL GC and Subcontractor Costs including O&P: \$636,406.64
Insurance Costs @ 1.0% \$6,364.07
Bond Costs @ 1.2% \$7,636.88
Sales Tax (65% of 8.8%) \$37,203.31

Subtotal Job Cost: \$687,610.90

Project Contingencies \$0.00

Project Allowances

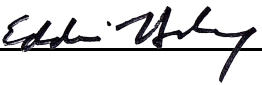
\$75,000.00

Owner must provide prior approval (in writing) before the use of any Allowance or Contingency Funds

TOTAL JOB COST:

\$762,610.90

Submitted by:



11.20.20

Date

Rev 4/18/2018 LH

NOTE: Pricing shall be all-inclusive such as permits, overhead, profit, design, taxes, equipment, labor and material., All pricing blanks must be filled in. Incomplete or unfilled spaces in the Bid Price Sheet shall result in a determination that a Bid is non-responsive.

Item #	Description	Unit	Quantity	Unit Price	Total
1	Mobilization/demobilization	LS	1	\$ 45,000 ⁰⁰	\$ 45,000 ⁰⁰
2	Utility locating (vacuum excavation)	LS	1	\$ 3,500 ⁰⁰	\$ 3,500 ⁰⁰
3	Materials testing (concrete & compaction testing)	LS	1	\$ 3,500 ⁰⁰	\$ 3,500 ⁰⁰
4	Traffic control	LS	1	\$ 6,500 ⁰⁰	\$ 6,500 ⁰⁰
5	Construction staking	LS	1	\$ 3,000 ⁰⁰	\$ 3,000 ⁰⁰
6	As-builts	LS	1	\$ 1,250 ⁰⁰	\$ 1,250 ⁰⁰
7	Cap and grout fill ex. sewer lines	LS	1	\$ 6,500 ⁰⁰	\$ 6,500 ⁰⁰
8	Remove existing curb and gutter	LF	52	\$ 20 ⁰⁰	\$ 1,040 ⁰⁰
9	Remove and replace existing sidewalk	SF	104	\$ 26 ⁰⁰	\$ 2,704 ⁰⁰
10	Remove and replace existing AC pavement	SY	132	\$ 150 ⁰⁰	\$ 19,800 ⁰⁰
11	Remove existing fence	LF	42	\$ 10 ⁰⁰	\$ 420 ⁰⁰
12	Mountable Curb	LF	26	\$ 65 ⁰⁰	\$ 1,690 ⁰⁰
13	Vertical curb and gutter	LF	26	\$ 65 ⁰⁰	\$ 1,690 ⁰⁰
14	Safety bollard	EA	2	\$ 1,900 ⁰⁰	\$ 3,800 ⁰⁰
15	Clearing and grubbing	LS	1	\$ 1,000 ⁰⁰	\$ 1,000 ⁰⁰
16	Site grading	LS	1	\$ 1,500 ⁰⁰	\$ 1,500 ⁰⁰
17	Excavation, shoring, backfill, & hauling	LS	1	\$ 91,447 ⁰⁰	\$ 91,447 ⁰⁰
18	ABC driveway and site ground cover (4")	CY	21	\$ 220 ⁰⁰	\$ 4,620 ⁰⁰
19	Steel reinforced, cast-in-place concrete pad, electrical equipment	CY	3	\$ 1,750 ⁰⁰	\$ 5,250 ⁰⁰
20	Steel reinforced, cast-in-place concrete pad, generator	CY	2	\$ 1,500 ⁰⁰	\$ 3,000 ⁰⁰
21	Precast 5-ft diameter wet well and cover	EA	1	\$ 28,000 ⁰⁰	\$ 28,000 ⁰⁰
22	Precast 5-ft diameter sewer manhole	EA	1	\$ 12,500 ⁰⁰	\$ 12,500 ⁰⁰
23	Connect to existing manhole	EA	1	\$ 2,500 ⁰⁰	\$ 2,500 ⁰⁰
24	8' CMU wall	LF	125	\$ 400 ⁰⁰	\$ 50,000 ⁰⁰

Item #	Description	Unit	Quantity	Unit Price	Total
25	Double swing gate	EA	1	\$ 9,000 ⁰⁰	\$ 9,000 ⁰⁰
26	Wet well hatch	EA	1	\$ 3,500 ⁰⁰	\$ 3,500 ⁰⁰
27	Pipe & equipment coating	LS	1	\$ 8,200 ⁰⁰	\$ 8,200 ⁰⁰
28	Wet well & manhole coating	LS	1	\$ 8,500 ⁰⁰	\$ 8,500 ⁰⁰
29	Electrical shade canopy	LS	1	\$ 17,500 ⁰⁰	\$ 17,500 ⁰⁰
30	Chopper pump assembly	EA	2	City-Supplied	
31	4" DIP force main	LF	256	\$ 225 ⁰⁰	\$ 57,600 ⁰⁰
32	10" PVC gravity sewer	LF	91	\$ 350 ⁰⁰	\$ 31,850 ⁰⁰
33	6" PVC wet well stubout	LF	5	\$ 200 ⁰⁰	\$ 1,000 ⁰⁰
34	1" Copper service, meter, BFP & hose bib	LS	1	\$ 6,500 ⁰⁰	\$ 6,500 ⁰⁰
35	4" DIP Wye	EA	2	\$ 800 ⁰⁰	\$ 1,600 ⁰⁰
36	4" DIP 90 Bend	EA	2	\$ 750 ⁰⁰	\$ 1,500 ⁰⁰
37	4" DIP 45 Bend	EA	7	\$ 700 ⁰⁰	\$ 4,900 ⁰⁰
38	4" Plug Valve	EA	5	\$ 1,950 ⁰⁰	\$ 9,750 ⁰⁰
39	4" Restrained flexible coupling	EA	4	\$ 1,750 ⁰⁰	\$ 7,000 ⁰⁰
40	4" Check valve	EA	2	\$ 3,300 ⁰⁰	\$ 6,600 ⁰⁰
41	4"x3" Reducer	EA	2	\$ 675 ⁰⁰	\$ 1,350 ⁰⁰
42	Install City furnished 4" flow meter	EA	1	\$ 800 ⁰⁰	\$ 800 ⁰⁰
43	4" Wet well vent	EA	1	\$ 1,800 ⁰⁰	\$ 1,800 ⁰⁰
44	1-1/2" PVC drain lines from ARV's to wet well	LS	1	\$ 1,500 ⁰⁰	\$ 1,500 ⁰⁰
45	Pipe support	EA	7	\$ 950 ⁰⁰	\$ 6,650 ⁰⁰
46	Combination air release valve	EA	3	\$ 4,200 ⁰⁰	\$ 12,600 ⁰⁰
47	2" PVC conduit for future fiber optic	LF	120	\$ 50 ⁰⁰	\$ 6,000 ⁰⁰
48	Electrical Improvements (all electrical improvements per Plan Sheets E1-E10)	LS	1	\$ 108,000 ⁰⁰	\$ 108,000 ⁰⁰
49	Instrumentation Improvements (all instrumentation improvements per Plan Sheets E1-E10 and M1-M2)	LS	1	\$ 55,000 ⁰⁰	\$ 55,000 ⁰⁰
50	(Allowance) - New APS Electrical Service	LS	1	\$ 25,000	\$ 25,000
51	(Allowance) Force Account	LS	1	\$ 50,000	\$ 50,000
BASE BID TOTAL (Items 1 - 52)					\$

52 Street Dept Work LS 1 \$ 9,700⁰⁰

\$ 9,700⁰⁰
\$ 762,611⁰⁰

Item #	Description	Unit	Quantity	Unit Price	Total
DEDUCTIVE BID ALTERNATES					
53	The Contractor shall provide a deductive bid alternate for removing the standby generator and generator pad from the project, and for replacing the automatic transfer switch with a manual transfer switch and quick connects.	LS	1	\$ -24,000 ⁼⁼	\$ -24,000 ⁼⁼
54	The Contractor shall provide a deductive bid alternate for changing the material of the below ground portion of the force main to 4" HDPE DR17, PE4710 (DIPS Sizing). Joining shall be per butt fusion and Contractor shall include all required fittings, adapters, thrust restraints. Contractor to provide fusion machine data logger quality control reports daily.	LF	172	\$	\$

*** ALL BIDS ARE PRESUMED TO INCLUDE ALL APPLICABLE TAXES. PLEASE BE ADVISED THAT ARIZ. REV. STAT. § 42-5075(P) APPLIES TO THE PROJECT CONTEMPLATED WITHIN THIS CONTRACT. CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL WORK CONTEMPLATED BY THE PLANS FOR THE PROJECT IS BID ON THE PRICE SHEET.**

Company Name: Schofield Civil Construction Date: Dec 29, 2020

ACCEPTANCE OF OPTIONAL ITEMS

ALT. No.53 Yes ☒ No ☐ Authorized By: Dean J Pehrson
Dean J Pehrson (Dec 29, 2020 14:18 MST)

ALT. No.54 Yes ☐ No ☐ Authorized By: _____

CITY COUNCIL REPORT

SUBJECT: Resolution 1003-0121 - Amendment to the Intergovernmental Agreement with Maricopa County Administered by the Human Services Department

MEETING DATE: 1/19/2021

TO: Mayor and Council

FROM: Chris Lopez, Neighborhood Family Services Director, (623) 333-2711

THROUGH: Cherlene Penilla, Deputy City Manager, (623) 333-1015

REVIEWED: Charles A. Montoya, City Manager, (623) 333-1016

PURPOSE:

City Council will consider a request to adopt Resolution 1003-0121, approving an amendment to an Intergovernmental Agreement with the Maricopa County Human Services Department for the provision of the Community Action Program (CAP) services, and authorize the Mayor or City Manager and City Clerk to execute the necessary documents. The Council will take appropriate action.

BACKGROUND:

The Community Action Program (CAP) began serving residents of Avondale in 1964. Services are provided to residents of Avondale who, for a variety of reasons, find themselves in financial difficulty. Families who live below the poverty level are often not able to put money aside for a crisis, and find themselves needing assistance when a change in the household occurs, such as a change in employment, medical emergency, divorce, caring for an aging family member or a vehicle expense.

DISCUSSION:

The Community Action Program (CAP) provides support to low income households and families in crisis with utility, rent and mortgage assistance. The service area stipulated under the contract includes: Avondale, Goodyear, Litchfield Park, unincorporated areas north to Glendale Avenue including Litchfield Park and east/south to Laveen and unincorporated areas around but not including Laveen. This is considered the West Central CAP area in Maricopa County.

MCHSD intends to amend the intergovernmental agreement with the City of Avondale for the remaining six months of FY2021 (January-June 2021) to continue providing funding to Neighborhood and Family Services in the amount of \$218,872. This amount will enable NFS to maintain increased temporary staff to assist in distributing the CAP funds which is anticipated to include CARES Act Funding.

BUDGET IMPACT:

The total funding provided by Maricopa County for the six month renewal in Fiscal Year 2021 is \$218,872. Appropriations will be transferred from grant contingency. There is no match required.

RECOMMENDATION:

Staff recommends that City Council approve an amendment to an Intergovernmental Agreement with Maricopa County Human Services Department and authorize the Mayor, city Manager and City Clerk to execute the necessary documents. The Council will take the appropriate action.

RESOLUTION NO. 1003-0121

A RESOLUTION OF THE COUNCIL OF THE CITY OF AVONDALE, ARIZONA, APPROVING AN AMENDMENT NO. 6 TO THE INTERGOVERNMENTAL AGREEMENT WITH MARICOPA COUNTY FOR A GRANT AWARD TO OPERATE THE COMMUNITY ACTION PROGRAM

BE IT RESOLVED BY THE COUNCIL OF THE CITY OF AVONDALE as follows:

SECTION 1. The Amendment No. 6 to the Intergovernmental Agreement between the City of Avondale (the “City”) and Maricopa County, Arizona for a grant award to operate the City’s Community Action Program for fiscal year 2020-2021 (the “Amendment”) is hereby approved substantially in the form and substance attached hereto as Exhibit A and incorporated herein by this reference.

SECTION 2. The Mayor, the City Manager, the City Clerk, and the City Attorney are hereby authorized and directed to cause the execution of the Amendment and to take all steps necessary to carry out the purpose and intent of this Resolution.

PASSED AND ADOPTED by the Council of the City of Avondale, Arizona, January 19, 2021.

Kenneth N. Weise, Mayor

ATTEST:

Marcella Carrillo, City Clerk

APPROVED AS TO FORM:

Nicholle Harris, City Attorney

EXHIBIT A
TO
RESOLUTION NO. 1003-0121

[Amendment]

See following pages.

AMENDMENT NO. 6 TO THE
INTERGOVERNMENTAL AGREEMENT
BETWEEN
MARICOPA COUNTY
ADMINISTERED BY ITS
HUMAN SERVICES DEPARTMENT
AND
CITY OF AVONDALE

- I. Maricopa County ("County"), administered by its Human Services Department, and the City of Avondale ("Subrecipient"), entered into a financial Intergovernmental Agreement ("Agreement"), which was fully executed on or about August 11, 2016, for the term of July 1, 2016, through June 30, 2017. The purpose of the Agreement is for the County to provide the Subrecipient with funds for the provision of Community Action Program services to include Crisis Case Management and Financial Assistance Services in the Community Service Area (CSA). The County and the Subrecipient collectively are referred to as the "Parties."

The Parties fully executed Amendment No. 1 on or about July 13, 2017, which (among other things) extended the Agreement term and provided funding for the period July 1, 2017, through June 30, 2018. The Parties fully executed Amendment No. 2 on or about July 9, 2018, which (among other things) extended the Agreement term and provided funding for the period July 1, 2018, through June 30, 2019. The Parties fully executed Amendment No. 3 on or about July 25, 2019, which (among other things) extended the Agreement term and provided funding for the period July 1, 2019, through June 30, 2020. The Parties fully executed Amendment No. 4 on or about June 24, 2020, which (among other things) extended the Agreement term and provided funding for the period July 1, 2020, through December 31, 2020. The Parties fully executed Amendment No. 5 on or about August 13, 2020, which (among other things) provided funding for the period January 1, 2021, through June 30, 2021.

- II. The Parties agree to enter into this Amendment No. 6 to amend the Agreement as follows:
- A. The County shall provide the Subrecipient with \$218,872 for the period of January 1, 2021, through June 30, 2021. The period of availability of these funds shall be from January 1, 2021 through June 30, 2021.
- B. Attach a revised Operating Budget for the period of availability.
- III. The foregoing paragraph contains all the changes made by this Amendment No. 6. All other terms and conditions of the Agreement remain in full force and effect as amended by Amendment Nos. 1, 2, 3, 4, and 5.
- IV. The Parties have authorized the undersigned to execute this Amendment No. 6 on their behalf.
- V. This Amendment No. 6 shall be effective upon approval and signature by both Parties.

[Signatures on the following page]

IN WITNESS, the Parties have approved and signed this Amendment No. 6:

APPROVED BY:
SUBRECIPIENT

APPROVED BY:
MARICOPA COUNTY

Mayor Date

Chairman, Board of Supervisors Date

Attested To:

Attested To:

City Clerk Date

Clerk of the Board Date

IN ACCORDANCE WITH A.R.S. §§ 9-240, 9-500.11, 11-952, AND 46-241, ET SEQ., THIS AMENDMENT NO. 6 HAS BEEN REVIEWED BY THE UNDERSIGNED ATTORNEY WHO HAS DETERMINED IT IS PROPER IN FORM AND WITHIN THE POWERS AND AUTHORITY GRANTED TO THE CITY OF AVONDALE UNDER THE LAWS OF THE STATE OF ARIZONA.

IN ACCORDANCE WITH A.R.S. §§ 11-201, 11-251, AND 11-952, THIS AMENDMENT NO. 6 HAS BEEN REVIEWED BY THE UNDERSIGNED ATTORNEY WHO HAS DETERMINED IT IS PROPER IN FORM AND WITHIN THE POWERS AND AUTHORITY GRANTED TO MARICOPA COUNTY UNDER THE LAWS OF THE STATE OF ARIZONA.

APPROVED AS TO FORM:

APPROVED AS TO FORM:

BY: _____
Attorney for the Subrecipient Date

BY: _____
Deputy County Attorney Date

ITEMIZED SERVICE BUDGET
CONTRACT SERVICE:
CONTRACT PERIOD: 01/01/2021 to 06/30/2021

PROVIDER NAME:

***A = % Administrative Functions**

***D = % Direct Service Functions**

I PERSONNEL

Position Number	TOTAL FTE Level	Position Title	TOTAL Salary for Period 01/01/2021 - 06/30/2021	TOTAL FTE Level for Contract Service	Percent (%) of Allocated Functions of Position* A + D = Total %	TOTAL COST for Contract Service	Cost of Contract Service to Other Resources	Proposed Cost to MCHSD
1		Human Service CAP Coordinator	\$29,120.00	1.00		\$29,120	\$0	\$29,120
		Total FTE's dedicated to this contract:		1.00	TOTAL:	\$29,120	\$0	\$29,120

II EMPLOYEE RELATED EXPENSES

ITEM	BASIS	TOTAL COST	MCHSD COST
Various Fringe Benefits	Average Fringe Rate Percentage 43.0000%	\$12,522	\$0
Overtime	times \$29,120	\$9,382	\$9,382
	TOTAL:	\$21,904	\$0

III PROFESSIONAL AND OUTSIDE SERVICES

ITEM	BASIS	TOTAL COST	MCHSD COST
Acro Temp Services	4 caseworkers; 3 admin staff	\$151,392	\$0
Interpreter Services	Contract Requirement	\$500	\$500
Security Services	Security Guard	\$12,000	\$12,000
		\$0	\$0
	TOTAL:	\$163,892	\$0

IV TRAVEL

ITEM	BASIS	TOTAL COST	MCHSD COST
		\$0	\$0
	TOTAL:	\$0	\$0

V SPACE

ITEM	BASIS	TOTAL COST	MCHSD COST
		\$0	\$0
	TOTAL:	\$0	\$0

VI MATERIALS AND SUPPLIES

ITEM	BASIS	TOTAL COST	MCHSD COST
CAP Office Supplies	Office materials, file folders, paper	\$3,156	\$0
			\$3,156

TOTAL:	\$3,156	\$0	\$3,156
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VII OPERATING SERVICES				
ITEM	BASIS	TOTAL COST	MCHSD COST	
NEUAC Membership	Annual Fee	\$500	\$0	\$500
CAP Certifications	Fingerprint Clearance Card	\$300	\$0	\$300
		\$0	\$0	\$0
TOTAL:		\$800	\$0	\$800

		TOTAL COST for Contract Service	Cost of Contract Service to Other Resources	Proposed Cost to MCHSD
VIII	TOTAL Costs per Column:	\$218,872	\$0	\$218,872
	List All Administrative/Operating Cost REVENUE SOURCES:	TOTAL Revenue(s)	Total of Other Resources Revenue(s)	Total Proposed MCHSD revenue
	MCHSD (proposed)	\$218,872		\$218,872
			\$0	
IX	TOTAL REVENUES:	\$218,872	\$0	\$218,872

CITY COUNCIL REPORT

SUBJECT: Resolution 1004-0121 - Fourth Amendment to the Intergovernmental Agreement with the City of Phoenix for Recycling Services

MEETING DATE: 1/19/2021

TO: Mayor and Council

FROM: Kirk Beaty, Public Works Director, (623) 333-4417

THROUGH: Gina Montes, Assistant City Manager, (623) 333-1012

REVIEWED: Charles A. Montoya, City Manager, (623) 333-1016

PURPOSE:

City Council will consider a request to adopt Resolution 1004-0121, authorizing the Fourth Amendment to the Intergovernmental Agreement with the City of Phoenix for recyclable materials processing services and authorize the Mayor, or City Manager and City Clerk to execute the necessary documents. The Council will take the appropriate action.

BACKGROUND:

The City of Avondale provides once a week curbside recycling service to over 22,000 households. Annually, the City collects approximately 5,000 tons of recycling materials. Through an Intergovernmental Agreement (IGA) originally adopted on June 20, 2016, the recycling materials are delivered to the City of Phoenix Materials Recycling Facility for processing. After the materials are processed at the facility they are sold on the open market. The agreement provided for revenue and expense sharing based on a blended recyclables market rate.

The original IGA was subsequently amended three times, twice in 2019 and once in 2020, to respond to changes in the recycling market both locally and nationally. The Term of the original IGA was three (3) years, with an option for two (2), one-year renewals. Renewals through amendments have extended this IGA to June 30, 2021, upon which time it will expire and must be renegotiated.

DISCUSSION:

The recycling markets continue to be volatile. Commodity prices for cardboard, plastics, metals and paper have all continued to fall over the last five years. Over the last year some cities have suspended or discontinued their recycling program. However, in the interest of environmental stewardship, most cities are still offering recycling, while keeping a watchful eye on market trends. Staff has carefully considered these options and recommends continuing the relationship with Phoenix at least through the expiration of the IGA in June of 2021. We believe that continuing to provide recycling and consistent service is very important to our citizens especially in these very uncertain times.

The Fourth Amendment reflects an increase in the processing fee from \$77 to \$80.40 per ton and eliminates

the \$5.00 credit per ton for loads with less than 20% contamination, through the final term. These changes result in a net cost per ton of \$30.23, equating to an additional total cost to the City of over \$20,000 through the end of the term (June 30, 2021), subject to adjustments to the blended rate for the final quarter in April 2021 reflecting the commodities market rates.

Staff will continue to work with the City of Phoenix staff to assess the future predictions for the commodities market. Predictions had indicated an improvement in the commodities market and that our rates would hold steady or even decrease through the IGA's final term; however, difficulties in accurately predicting the recyclable market combined with cyclical economic/residential growth patterns and unknown long-term economic impacts of the pandemic, demonstrated this not to be the case.

A review of sanitation rates is planned later this year which will include an analysis of the long-term fiscal viability of recycling services. Staff will work closely with the Finance Department during this process to analyze how the program costs will affect sanitation rates. When the rate study is complete and as the agreement reaches the end of the final term, staff will return to Council to discuss the recycling program and a continued recycling partnership with Phoenix.

The current trash disposal rate per ton at the City of Glendale landfill is \$29.50. The agreement with Glendale expires in June of 2021 and we do expect that rate to increase by at least \$1.50 when a new IGA is negotiated. The City of Avondale averages 450 ton per month of recycled material. This calculates to approximately \$330.00 more per month for tipping fees for taking these materials for recycling as opposed to hauling the material to the landfill. Staff believes keeping our program operational is in the best interest of both parties and keeps Avondale's options open. However, we do realize that the program must be financially viable. As the cost of recycling has reached the critical point where per ton cost equals or exceeds land fill tipping fees, it becomes a conscientious decision for Council on the value of recycling to our community. Staff will return to Council with information for this higher-level discussion and decision prior to June of 2021 when new long-term agreements with Phoenix and Glendale are proposed.

BUDGET IMPACT:

Council approved funding for the recycling processing fees in the fiscal year 2020/2021 budget. Adequate funding is available in the budget, and costs associated with this IGA will be paid from Solid Waste account 520-6830-00-6151, Recycling Fees.

RECOMMENDATION:

Staff recommends that the City Council adopt a Resolution authorizing the Fourth Amendment to the Intergovernmental Agreement with the City of Phoenix for recyclable materials processing services and authorize the Mayor, or City Manager and City Clerk to execute the necessary documents.

RESOLUTION NO. 1004-0121

A RESOLUTION OF THE COUNCIL OF THE CITY OF AVONDALE, ARIZONA, APPROVING THE FOURTH AMENDMENT TO THE INTERGOVERNMENTAL AGREEMENT WITH THE CITY OF PHOENIX RELATING TO PROCESSING AVONDALE'S RECYCLABLE MATERIALS.

BE IT RESOLVED BY THE COUNCIL OF THE CITY OF AVONDALE as follows:

SECTION 1. The Amendment No. 4 to the Intergovernmental Agreement with the City of Phoenix relating to processing of recyclable materials (the "Amendment") is hereby approved in substantially the form and substance attached hereto as Exhibit A and incorporated herein by reference.

SECTION 2. The Mayor, the City Manager, the City Clerk and the City Attorney are hereby authorized and directed to cause the execution of the Amendment and to take all steps necessary to carry out the purpose and intent of this Resolution.

PASSED AND ADOPTED by the Council of the City of Avondale, Arizona, January 19, 2021.

Kenneth N. Weise, Mayor

ATTEST:

Marcella Carrillo, City Clerk

APPROVED AS TO FORM:

Nicholle Harris, City Attorney

EXHIBIT A
TO
RESOLUTION NO. 1004-0121

[Amendment No. 4]

See following pages.

**CONTRACT AMENDMENT**

CITY OF PHOENIX
 Public Works/Procurement
 200 W. Washington St.
 7th Floor
 Phoenix, AZ 85003

Date December 22, 2020
 City Clerk Contract No. 143194
 Ordinance # and Date S-42735 – 06/22/2016
 S-45572 – 04/17/2019
 Amendment No. 4

Contract Title Avondale for Processing of Recyclable Materials

With City of Avondale
 Contact Info Javier Machuca, jmachuca@avondaleaz.gov

City Contact Name Eduardo Rodriguez
 Telephone No. 602-495-5362
 Email Eduardo.Rodriguez@phoenix.gov

THE ABOVE REFERENCED CONTRACT IS AMENDED AS FOLLOWS:

1. In accordance with Intergovernmental Agreement (Section 13, 13.1, Charge or Rebate) The following updated Price Schedule replaces the existing Price Schedule, with an effective date of January 1, 2021.

Price Schedule			
Item No.	Description	Price	Effective Date
Item 1	Processing Fee	\$70.00 per ton	07/01/2018-06/30/2019
		\$70.00 per ton	07/01/2019-06/30/2020
		\$77.00 per ton	07/01/2020-12/31/2020
		\$80.40 per ton	01/01/2021-06/30/2021
Item 2	Average Quarterly Outbound Blended Rate	\$49.22 per ton (Q1 2019)	01/01/2019-03/31/2019
		\$51.67 per ton (Q2 2019)	04/01/2019-06/30/2019
		\$56.26 per ton (Q3 2019)	07/01/2019-09/30/2019
		\$43.18 per ton (Q4 2019)	10/01/2019-12/31/2019
		\$27.18 per ton (Q1 2020)	01/01/2020-03/31/2020
		\$27.18 per ton (Q2 2020)	04/01/2020-06/30/2020
		\$34.59 per ton (Q3 2020)	07/01/2020-09/30/2020
		\$50.15 per ton (Q4 2020)	10/01/2020-12/31/2020
		\$50.17 per ton (Q1 2021)	01/01/2021-03/31/2021
Item No.	Description	Percent	Effective Date
Item 3	Reject Content	\$5.00 Credit Per Ton (20%)	07/01/2019-12/31/2020
		\$0.00 Credit Per Ton	01/01/2021-06/30/2021

2. Except as otherwise amended, all other terms and conditions of the Agreement and any prior amendments not in conflict will remain in full force and effect. If there is a conflict or ambiguity among amendments and the Agreement, the most recent



CONTRACT AMENDMENT

CITY OF PHOENIX
Public Works/Procurement
200 W. Washington St.
7th Floor
Phoenix, AZ 85003

amendment will only prevail and control if clear and unambiguous; and if not the original Agreement will govern to the extent necessary to support the intent of the Agreement. |

ALL OTHER CONTRACT PRICES, TERMS, AND CONDITIONS WILL REMAIN THE SAME

City of Avondale, a municipal
corporation

City of Phoenix, a municipal corporation

Charles Montoya, City Manager

Ed Zuercher, City Manager

Ginger Spencer, Public Works Director

ATTEST:

ATTEST:

City Clerk

City Clerk

APPROVED AS TO FORM:

APPROVED AS TO FORM:

Nicholle Harris, City Attorney
Date:

Cris Meyer, City Attorney
Date:

Assistant Chief Counsel
Date:

CITY COUNCIL REPORT

SUBJECT: Ordinance 2003-0121- Sixth Amendment to the Office Lease With the University of Medical Sciences Arizona

MEETING DATE: 1/19/2021

TO: Mayor and Council

FROM: Ken Chapa, Economic Development Director (623) 333-1411

THROUGH: Tracy Stevens, Deputy City Manager, 623-333-1014

REVIEWED: Charles A. Montoya, City Manager, (623) 333-1016

PURPOSE:

City Council will consider a request to adopt Ordinance 2003-0121, approving the Sixth Amendment to the Office Lease with the University of Medical Sciences Arizona to remain in the space on a month to month lease until June 30, 2021 and authorize the Mayor or City Manager, City Attorney and City Clerk to execute the necessary documents. The Council will take appropriate action.

BACKGROUND:

September 11, 2013 the City of Avondale acquired the property at 125 S. Avondale Boulevard and assumed the lease dated February 27, 2013 with University of Medical Sciences, an Arizona non-profit corporation (Tenant).

DISCUSSION:

The Sixth Amendment to the Office Lease will be a month to month lease expiring by June 30, 2021. The Amendment will allow the University of Medical Sciences of Arizona the opportunity to identify a new location and construct their necessary tenant improvements while providing ongoing revenue, \$4,897.50 a month, to the City of Avondale. Economic Development staff will continue to work with the tenant to identify suitable locations in Avondale.

The City does not plan to lease the space after the tenant vacates as it is scheduled to be occupied by the City's Information Technology Department.

BUDGET IMPACT:

City will receive monthly rental income of \$4,897.50.

RECOMMENDATION:

Staff recommends adoption of an Ordinance, approving the Sixth Amendment to extend the Office Lease to June 30, 2021.

ORDINANCE NO. 2003-0121

AN ORDINANCE OF THE COUNCIL OF THE CITY OF AVONDALE, ARIZONA, APPROVING THE SIXTH AMENDMENT TO THE LEASE AGREEMENT BETWEEN THE CITY OF AVONDALE AND UNIVERSITY OF MEDICAL SCIENCES ARIZONA.

BE IT ORDAINED BY THE COUNCIL OF THE CITY OF AVONDALE as follows:

SECTION 1. The Sixth Amendment to the Lease Agreement between the City of Avondale and University of Medical Sciences Arizona (the “Sixth Amendment”) is hereby approved in substantially the form and substance attached hereto as Exhibit A and incorporated herein by reference.

SECTION 2. The Mayor, the City Manager, the City Clerk and the City Attorney are hereby authorized and directed to take all steps and to execute all documents necessary to carry out the purpose and intent of this Ordinance.

PASSED AND ADOPTED by the Council of the City of Avondale, Arizona, January 19, 2021.

Kenneth N. Weise, Mayor

ATTEST:

Marcella Carrillo, City Clerk

APPROVED AS TO FORM:

Nicholle Harris, City Attorney

EXHIBIT A
TO
ORDINANCE NO. 2003-0121

[Sixth Amendment]

See following pages.

**SIXTH AMENDMENT
TO
OFFICE LEASE
BETWEEN
THE CITY OF AVONDALE
AND
UNIVERSITY OF MEDICAL SCIENCES ARIZONA**

THIS SIXTH AMENDMENT TO OFFICE LEASE (this "Sixth Amendment") is entered into as of the Effective Date by and between the City of Avondale, an Arizona municipal corporation ("Landlord"), and University of Medical Sciences Arizona, an Arizona nonprofit corporation ("Tenant"). Landlord and Tenant are referred to collectively as the "Parties." The "Effective Date" shall be the date upon which the last of the Landlord and Tenant execute this Sixth Amendment.

RECITALS

A. Landlord, as successor in interest, and Tenant entered into that certain Office Lease dated February 27, 2013, as amended (collectively, the "Lease"), regarding that certain Premises more particularly described in the Lease. Unless otherwise defined, all capitalized terms shall have the meaning set forth in the Lease.

B. The Parties desire to amend the Lease as set forth in this Sixth Amendment.

AGREEMENT

NOW, THEREFORE, in consideration of the mutual covenants set forth herein and the faith full performance thereof and for other good and valuable consideration, the receipt of which are hereby acknowledged, the Parties hereby agree to amend the Lease as follows:

1. Accuracy of Recitals. The Parties hereby acknowledge the accuracy of the Recitals, which are incorporated herein by this reference.

2. Amendment to Lease. The Lease is hereby amended as follows:

(a) Paragraph 1.6, "Expiration Date," is hereby deleted in its entirety and replaced as follows:

"Expiration Date: The last day of the eighty-seventh (87th) full calendar month after the Commencement Date"

(b) The parties agree that the lease may be extended on a month to month basis commencing on the first day of the 88th month after the Commencement Date and expiring on

June 30, 2021 (the "Month to Month Term"). Either party may terminate the Lease upon giving the other party thirty (30) days written notice of its intent to terminate the lease.

3. Base Rent for Month to Month Term. The Base Rent for the Month to Month Term shall remain the same as set for the year 5 period in Paragraph 1.9 of the Lease.

4. Memorandum of Lease Acknowledgment. Tenant hereby acknowledges that in accordance with ARIZ. REV. STAT. § 42-6202(C), Landlord will record a memorandum of the Sixth Amendment in the Maricopa County Recorder's Office.

5. Brokerage. Neither Landlord nor Tenant has dealt with any broker or agent in connection with the negotiation of this Sixth Amendment. Tenant shall indemnify, defend and hold Landlord harmless for, from and against all costs, expenses, attorneys' fees, liens and other liability for commissions or other compensation claimed by any broker or agent claiming the same by, through or under Tenant. The foregoing indemnities shall survive the expiration or earlier termination of the Lease.

6. Effect of Amendment. Except as specifically modified by this Sixth Amendment, the Lease remains in full force and effect and is in all events ratified, confirmed and approved.

7. Conflicting Terms. In the event of any inconsistency, conflict or ambiguity among the terms of this Sixth Amendment and the Lease, the documents shall govern in the order listed herein.

8. Non-Default. By executing this Sixth Amendment, Tenant affirmatively asserts that (i) Landlord is not currently in default, nor has been in default at any time prior to this Sixth Amendment, under any of the terms or conditions of the Lease and (ii) any and all claims, known and unknown, relating to the Lease and existing on or before the date of this Sixth Amendment are forever waived.

9. Counterparts. This Sixth Amendment may be executed in multiple counterparts, each of which shall be deemed to be an original, but all of which, together, shall constitute one and the same instrument.

[SIGNATURES ON FOLLOWING PAGES]

IN WITNESS WHEREOF, the Parties hereto have executed this Sixth Amendment as of the last date set forth under the signatures of the Parties below.

“LANDLORD”

CITY OF AVONDALE, an
Arizona municipal corporation

Charles Montoya, City Manager

Date: _____

ATTEST:

Marcella Carrillo, City Clerk

(ACKNOWLEDGMENT)

STATE OF ARIZONA)
) ss.
COUNTY OF MARICOPA)

This instrument was acknowledged before me on _____, 2021, by _____, the City Manager of the CITY OF AVONDALE, an Arizona municipal corporation, on behalf of the City of Avondale.

Notary Public in and for the State of Arizona

(affix notary seal here)

[SIGNATURES CONTINUE ON FOLLOWING PAGE]

"TENANT"

UNIVERSITY OF MEDICAL SCIENCES ARIZONA,
an Arizona nonprofit corporation

By: _____

Name: _____

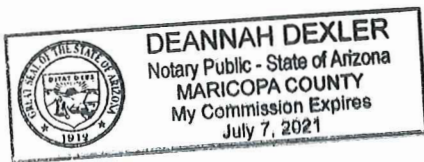
Title: _____

Date: _____

(ACKNOWLEDGMENT)

STATE OF ARIZONA)
) ss.
COUNTY OF MARICOPA)

This instrument was acknowledged before me on DECEMBER 28, 2021, by
KENNETH PITTS, as CFO of UNIVERSITY OF
MEDICAL SCIENCES ARIZONA, an Arizona nonprofit corporation, on behalf of the
corporation.



(affix notary seal here)

Notary Public in and for the State of
ARIZONA

CITY COUNCIL REPORT

SUBJECT: Ordinance 2004-0121 - Dedication of Public Utility Easement (PUE) from the Pendergast School District

MEETING DATE: 1/19/2021

TO: Mayor and Council

FROM: Kevin Murphy, Director of Development and Engineering Services, (623) 333-4011

THROUGH: Tracy Stevens, Deputy City Manager, 623-333-1014

REVIEWED: Charles A. Montoya, City Manager, (623) 333-1016

PURPOSE:

City Council will consider a request to adopt Ordinance 2004-0121, authorizing the dedication of a Public Utility Easement (PUE) on Palm Lane from 118th Avenue to 116th Drive adjacent to Canyon Breeze Elementary School, owned by the Pendergast School District No. 92, and authorize the Mayor or City Manager, City Attorney and City Clerk to execute the necessary documents. The Council will take appropriate action.

BACKGROUND:

The City's current Capital Improvement Program includes a project to construct roadway improvements to Palm Lane from 116th Drive to 118th Avenue. Improvements for the 2 lane roadway section include asphalt pavement, sidewalk, curb and gutter, signing, striping and streetlights.

In order to construct the Palm Lane roadway improvements, a Public Utility Easement (PUE) is required adjacent to Canyon Breeze Elementary School. During the design process, City staff discovered that several years ago, when the school was constructed, a PUE dedication was intended but never carried through. This PUE dedication is required for the current roadway improvement project.

DISCUSSION:

In order to construct the Palm Lane roadway improvements, a PUE is required along Palmlane between 116th Drive to 118th Avenue adjacent to Canyon Breeze Elementary School.

An Exhibit depicting the area to be dedicated by Canyon Breeze Elementary School is attached to this report.

Palm Lane Project Schedule

The Palm Lane Project is expected to begin in February 2021 and be completed in April 2021.

STRATEGIC PLAN ALIGNMENT

Initiative: Foster Sustainable Community Development

Goal: Maintain and expand infrastructure and improve connectivity to City amenities

BUDGET IMPACT:

There is no budget impact associated with this action.

RECOMMENDATION:

Staff recommends that City Council adopt an Ordinance authorizing the acquisition of PUE from the Pendergast School District and authorize the Mayor or City Manager and City Clerk to execute the necessary documents.

ORDINANCE NO. 2004-0121

AN ORDINANCE OF THE COUNCIL OF THE CITY OF AVONDALE, ARIZONA, ACCEPTING THE DEDICATION OF A PUBLIC UTILITY AND STREETLIGHT EASEMENT FOR PUBLIC USE.

BE IT ORDAINED BY THE COUNCIL OF THE CITY OF AVONDALE as follows:

SECTION 1. A public utility and streetlight easement over, across and under $\pm$ 0.116 acres of real property generally located along the north side Palm Lane, west of 116th Lane, in Avondale, Arizona, as more particularly described and depicted in Exhibit A, attached hereto and incorporated herein by reference, is hereby accepted in substantially the form and substance set forth in Exhibit A, by the City of Avondale (the "City") from the Pendergast Elementary School District No. 92, a political subdivision of the State of Arizona.

SECTION 2. The Mayor, the City Manager, the City Clerk and the City Attorney are hereby authorized and directed to take all steps and execute all documents necessary to carry out the purpose and intent of this Ordinance.

PASSED AND ADOPTED by the Council of the City of Avondale, Arizona, January 19, 2021.

Kenneth N. Weise, Mayor

ATTEST:

Marcella Carrillo, City Clerk

APPROVED AS TO FORM:

Nicholle Harris, City Attorney

EXHIBIT A
TO
ORDINANCE NO. 2004-0121

[Public Utility and Streetlight Easement Legal Description and Map]

See following pages.



EXHIBIT "A"

**LEGAL DESCRIPTION
FOR
PUBLIC UTILITY EASEMENT
CITY OF AVONDALE
CANYON BREEZE ELEMENTARY SCHOOL**

A portion of the parcel of land described in Document #1995-0275127 lying in the Southeast Quarter of Section 36, Township 2 North, Range 1 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona being more particularly described as follows:

COMMENCING at the brass cap in hand hole found at the East Quarter Corner of said Section 36, from which the brass cap flush found at the Center of said Section bears North 89 degrees 26 minutes 55 seconds West a distance of 2,612.93 feet, said line being the North line of the Southeast Quarter of said Section 36, and said line being the basis of bearings for this description;

Thence along said North line, North 89 degree 26 minutes 55 seconds West a distance of 1307.00 feet to the brass cap flush found at the intersection of 116th Lane and Encanto Boulevard, said point also being the northeast corner of the East Half of the Northwest Quarter of said Southeast Quarter;

Thence along the centerline of 116th Lane, South 00 degrees 32 minutes 06 seconds West a distance of 497.82 feet to the brass cap flush found at the intersection of 116th Lane and Monte Vista Road;

Thence continuing along the centerline of 116th Lane, South 00 degrees 32 minutes 16 seconds West a distance of 270.04 feet to the brass cap flush found at the intersection of 116th Lane and Holly Street;

Thence continuing along the centerline of 116th Lane, South 00 degrees 32 minutes 42 seconds West a distance of 291.86 feet to the brass cap flush found at the intersection of 116th Lane and Hubbell Street;

Thence continuing along the centerline of 116th Lane, South 00 degrees 32 minutes 31 seconds West a distance of 217.05 feet to a point;

Thence North 89 degrees 27 minutes 29 seconds West a distance of 32.00 feet to a point on a line parallel with and 32.00 feet distant from centerline of 116th Lane, said point being the POINT OF BEGINNING;

Thence along said parallel line, South 00 degrees 32 minutes 31 seconds West a distance of 3.29 feet to a point;



Thence South 45 degrees 15 minutes 18 seconds West a distance of 28.43 feet to a point on a line parallel with and 30.00 feet distant from the centerline of Palm Lane, said centerline also being the south line of the Northwest Quarter of the Southeast Quarter;

Thence along last-mentioned parallel line, South 89 degrees 58 minutes 06 seconds West a distance of 606.12 feet to a point on the west line of said East Half of the Northwest Quarter of the Southeast Quarter;

Thence along the west line of said East Half of the Northwest Quarter of the Southeast Quarter, North 00 degrees 46 minutes 38 seconds East a distance of 8.00 feet to a point on a line parallel with and 38.00 feet distant from said centerline of Palm Lane;

Thence along said parallel line, North 89 degrees 58 minutes 06 seconds East a distance of 602.72 feet to a point;

Thence North 45 degrees 15 minutes 18 seconds East a distance of 21.84 feet to a point;

Thence South 89 degrees 27 minutes 29 seconds East a distance of 8.00 feet to the POINT OF BEGINNING.

Containing an area of 5,050 SQUARE FEET or 0.116 ACRES, more or less.

See attached Exhibit "B" drawing.

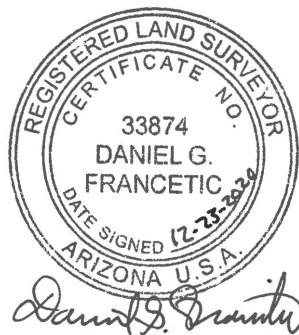
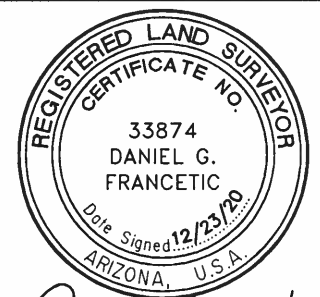
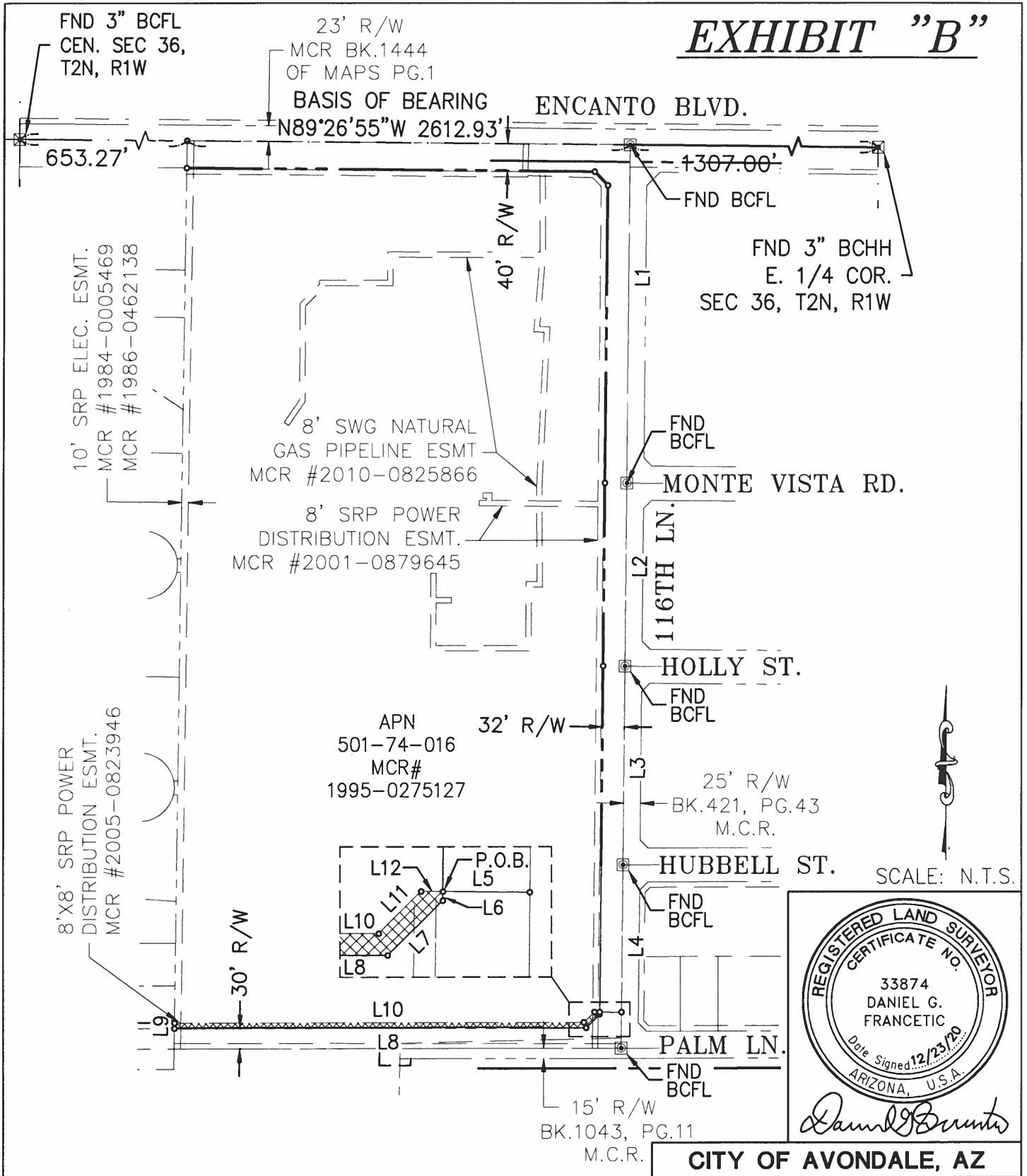


EXHIBIT "B"



Daniel G. Francetic

CITY OF AVONDALE, AZ

20-003C

SECTION 36, T2N, R1W

PUBLIC UTILITY EASEMENT
DEDICATION EXHIBIT

DATE: 12/23/20 REV'D:
DRAWN BY: JDS CHK'D: DGF PG: 3 OF 4
FILE: PUE

LEGEND

PUBLIC UTILITY EASEMENT

BASIS OF BEARING

THE NORTH LINE OF THE SOUTHEAST
QUARTER OF SECTION 36
BEARING N89°26'55"W

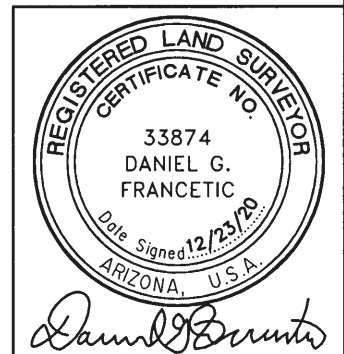


EntellusTM

3033 N. 44th Street Suite 250
Phoenix, AZ 85018.7228
Tel 602.244.2566
Fax 602.244.8947
Website: www.Entellus.com

EXHIBIT "B"

Line Table		
Line #	Length	Direction
L1	497.82	S0° 32' 06"W
L2	270.04	S0° 32' 16"W
L3	291.86	S0° 32' 42"W
L4	217.05	S0° 32' 31"W
L5	32.00	N89° 27' 29"W
L6	3.29	S0° 32' 31"W
L7	28.43	S45° 15' 18"W
L8	606.12	S89° 58' 06"W
L9	8.00	N0° 46' 38"E
L10	602.72	N89° 58' 06"E
L11	21.84	N45° 15' 18"E
L12	8.00	S89° 27' 29"E



CITY OF AVONDALE, AZ

20-003C

SECTION 36, T2N, R1W

**PUBLIC UTILITY EASEMENT
DEDICATION EXHIBIT**

DATE: 12/23/20 | REV'D:
DRAWN BY: JDS | CHK'D: DGF | PG: 4 OF 4
FILE: PUE

LEGEND



PUBLIC UTILITY EASEMENT

BASIS OF BEARING

THE NORTH LINE OF THE SOUTHEAST
QUARTER OF SECTION 36
BEARING N89°26'55"W



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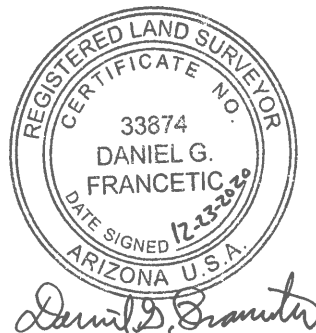
3033 N. 44th Street Suite 250
Phoenix, AZ 85018.7228
Tel 602.244.2566
Fax 602.244.8947
Website: www.Entellus.com

PUE TIE LINE
Polyline Report

Wed Dec 23 13:43:26 2020

Northing	Easting	Bearing	Distance
899370.233	579855.197		
		S 00°32'06" W	497.819
898872.436	579850.548		
		S 00°32'16" W	270.039
898602.409	579848.013		
		S 00°32'42" W	291.858
898310.564	579845.237		
		S 00°32'31" W	217.048
898093.526	579843.184		
		N 89°27'29" W	32.000
898093.829	579811.185		

Closure Error Distance> 1277.16300 Error Bearing> N 01°58'29" E
Closure Precision> 1 in 1.0 Total Distance> 1308.764
Area not calculated because polyline not closed



PUE BOUNDARY
Polyline Report

Wed Dec 23 13:44:44 2020

Northing	Easting	Bearing	Distance
898093.829	579811.185		
		S 00°32'31" W	3.290
898090.539	579811.154		
		S 45°15'18" W	28.426
898070.528	579790.965		
		S 89°58'06" W	606.120
898070.192	579184.845		
		N 00°46'38" E	8.001
898078.192	579184.954		
		N 89°58'06" E	602.717
898078.527	579787.670		
		N 45°15'18" E	21.845
898093.904	579803.186		
		S 89°27'29" E	8.000
898093.829	579811.185		

Closure Error Distance> 0.00000

Total Distance> 1278.398

Polyline Area: 5049.6 sq ft, 0.1159 acres



CITY COUNCIL REPORT

SUBJECT: Ordinance 2005-0121 - Recreational Marijuana Regulations - Chapter 15 of Avondale City Code

MEETING DATE: 1/19/2021

TO: Mayor and Council

FROM: Nicholle Harris, City Attorney, (623) 333-1514

THROUGH: Gina Montes, Deputy City Manager, (623) 333-1012

REVIEWED: Charles A. Montoya, City Manager, (623) 333-1016

PURPOSE:

City Council will consider a request to adopt Ordinance 2005-0121, amending Chapter 15 of the Avondale City Code relating to the regulation of recreational marijuana and authorize the Mayor or City Manager, City Attorney and City Clerk to execute the necessary documents. The Council will take appropriate action.

BACKGROUND:

Proposition 207, the Smart and Safe Arizona Act was passed by Arizona voters on November 3, 2020. With the passing of Proposition 207 the retail sale, possession and use of marijuana by individuals over the age of 21 is now legal in Arizona. The proposed amendments to Chapter 15 of the Avondale City Code, relate to the regulations of recreational marijuana sale, use and possession in the City of Avondale.

DISCUSSION:

The amendments to Chapter 15 of the Avondale City Code will add regulations that address the sale, use and possession of recreational marijuana. The regulations include the following:

Retail sales of marijuana will be limited to being operated in conjunction with a medical marijuana dispensary. The regulations will also prohibit the smoking of marijuana in open spaces (public parks, public sidewalk, public thoroughfare and public walk ways) and public places. The use of marijuana will be prohibited on any property that is own, controlled, occupied or operated by the City.

Additionally, the regulations will prohibit marijuana testing facilities and social equity licenses from locating in Avondale. The use of marijuana will operating a vehicle on a public highway or right-of-way is also prohibited.

The possession and use of marijuana on the property of school or other political subdivisions will be prohibited if the entity adopts rules and regulations prohibiting the same.

The Arizona Department of Health Services is scheduled to issue its final rules and regulations for retail sales and start accepting applications for recreational marijuana licenses on January 19, 2021.

BUDGET IMPACT:

Staff recommends adoption of an Ordinance, amending Chapter 15 of the Avondale City Code to add provisions for the regulation of recreational marijuana.

RECOMMENDATION:

This item has no budget impact.

ORDINANCE NO. 2005-0121

AN ORDINANCE OF THE COUNCIL OF THE CITY OF AVONDALE, ARIZONA, AMENDING THE AVONDALE CITY CODE CHAPTER 15, MISCELLANEOUS PROVISIONS AND OFFENSES BY ADDING A NEW ARTICLE III, RECREATIONAL MARIJUANA, IMPOSING FEES; SETTING FORTH VIOLATIONS; PROVIDING FOR ENFORCEMENT AND PENALTIES AND DECLARING AN EMERGENCY.

WHEREAS, marijuana contains tetrahydrocannabinol (“THC”), which remains on Schedule I of the Controlled Substances Act pursuant to 21 U.S.C. § 811 et al. and any possession and use is a violation of federal law pursuant to 21 U.S.C. § 841 et. al.; and

WHEREAS, the Arizona Medical Marijuana Act, ARIZ. REV. STAT. § 36-2801 et al., and Title 9, Chapter 17 of the Arizona Administrative Code allow the establishment and operation of medical marijuana dispensaries in the City of Avondale according to a prescribed statutory and regulatory process; and

WHEREAS, the statewide ballot measure known as Proposition 207 the “Smart and Safe Arizona Act” was passed by the voters on November 3, 2020 and (i) authorizes the possession, consumption, purchase, processing, manufacturing or transporting of marijuana by an individual who is at least 21 years of age; (ii) authorizes the possession, transport, cultivation or processing of marijuana plants in a primary residence by adults over 21 years of age; (iii) allows a medical marijuana dispensary or other non-dispensary applicant to apply to the Department of Health Services to become a licensed marijuana establishment authorized to engage in the retail sale, cultivation and manufacturing of marijuana; and (iv) allows the Arizona Department of Health Services (the “Department”), or another entity designated by the Department, to become a marijuana testing facility to test the potency of marijuana and detect any harmful contaminants; and

WHEREAS, the City of Avondale (the “City”) finds that Proposition 207 authorizes marijuana establishments to use chemical extraction or chemical synthesis, including butane and other flammable gases, to extract marijuana concentrate, which poses a threat to the health, safety and security of the community and increases the responsibilities of law enforcement and City departments to respond to violations of state and local laws, including building, electrical and fire codes; and

WHEREAS, the City seeks to protect the public health, safety, and welfare of its residents by prohibiting new marijuana establishments and marijuana testing facilities in the City.

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF AVONDALE as follows:

SECTION 1. The recitals above are hereby incorporated as if fully set forth herein.

SECTION 2. The Avondale City Code, Chapter 15 (Miscellaneous Provisions and Offenses) is hereby amended to add a new Article III (Recreational Marijuana) to read as follows:

ARTICLE III – RECREATIONAL MARIJUANA

15-28 Purpose. This article is adopted to protect the health, safety, and welfare of the community. Except as allowed by law for personal, private use, the city prohibits the retail sale, cultivation, and manufacturing of marijuana or marijuana products in the city. Nothing in this article is intended to promote or condone the sale, cultivation, manufacture, transport, production, distribution, possession, or use of marijuana or marijuana products in violation of any applicable law.

15-29. Definitions. The below words and phrases, wherever used in this article, shall be construed as defined in this section unless, clearly from the context, a different meaning is intended. Words used in the present tense include the future tense, words in the plural number include the singular number, and words in the singular number include the plural number:

“*Chemical Extraction*” means the process of removing a particular component of a mixture from others present, including removing resinous tetrahydrocannabinol from marijuana.

“*Chemical Synthesis*” means production of a new particular molecule by adding to, subtracting from, or changing the structure of a precursor molecule.

“*Consume*,” “*Consuming*,” and “*Consumption*” mean the act of ingesting, inhaling or otherwise introducing marijuana into the human body.

“*Consumer*” means an individual who is at least twenty-one years of age and who purchases marijuana or marijuana products.

“*Cultivate*” and “*Cultivation*” mean to propagate, breed, grow, prepare and package marijuana.

“*Deliver*” and “*Delivery*” mean the transportation, transfer or provision of marijuana or marijuana products to a consumer at a location other than the designated retail location of a marijuana establishment.

“*Department*” means the State of Arizona Department of Health Services or its successor agency.

“*Dual Licensee*” means an entity that holds both a nonprofit medical marijuana dispensary license and a marijuana establishment license.

“*Enclosed Area*” means a building, greenhouse, or other structure that (i) has a complete roof enclosure supported by connecting walls that are constructed of solid material extending from the ground to the roof; (ii) is secure against unauthorized entry; (ii) has a foundation, slab or equivalent base to which the floor is securely attached; and (iv) meets performance standards ensuring that cultivation and processing activities cannot be and are not perceptible from the structure in terms of not being visible from public view without using binoculars, aircraft or other optical aids and is equipped with a lock or other security device that prevents access by minors.

“*Extraction*” means the process of extracting or separating resin from marijuana to produce or process any form of marijuana concentrates using water, lipids, gases, solvents, or other chemicals or chemical processes.

“*Manufacture*” and “*Manufacturing*” mean to compound, blend, extract, infuse or otherwise make or prepare a marijuana product.

“*Marijuana*”(i) means all parts of the plant of the genus cannabis, whether growing or not, as well as the seeds from the plant, the resin extracted from any part of the plant, and every compound, manufacture, salt, derivative, mixture or preparation of the plant or its seeds or resin, (ii) includes cannabis as defined in Ariz. Rev. Stat. § 13-3401; (iii) does not include industrial hemp, the fiber produced from the stalks of the plant of the genus cannabis, oil or cake made from the seeds of the plant, sterilized seeds of the plant that are incapable of germination, or the weight of any other ingredient combined with marijuana to prepare topical or oral administrations, food, drink or other products.

“*Marijuana Concentrate*” (i) means resin extracted from any part of a plant of the genus cannabis and every compound, manufacture, salt, derivative, mixture or preparation of that resin or tetrahydrocannabinol and (ii) does not include industrial hemp or the weight of any other ingredient combined with cannabis to prepare topical or oral administrations, food, drink or other products.

“*Marijuana Establishment*” means an entity licensed by the Department to operate all of the following:

(1) A single retail location at which the licensee may sell marijuana and marijuana products to consumers, cultivate marijuana and manufacture marijuana products.

(2) A single off-site cultivation location at which the licensee may cultivate marijuana, process marijuana and manufacture marijuana products, but from which marijuana and marijuana products may not be transferred or sold to consumers.

(3) A single off-site location at which the licensee may manufacture marijuana products and package and store marijuana and marijuana products, but from which marijuana and marijuana products may not be transferred or sold to consumers.

“*Marijuana Products*” means marijuana concentrate and products that are composed of marijuana and other ingredients and that are intended for use or consumption, including edible products, ointments, and tinctures.

“*Marijuana Testing Facility*” means the Department or another entity that is licensed by the Department to analyze the potency of marijuana and test marijuana for harmful contaminants.

“*Nonprofit Medical Marijuana Dispensary*” means a non-profit entity as defined in ARIZ. REV. STAT. § 36-2801(12).

“*Open Space*” means a public park, public sidewalk, public walkway or public pedestrian thoroughfare.

“*Person*” means an individual, partnership, corporation, association, or any other entity of whatever kind or nature.

“*Process*” and “*Processing*” means to harvest, dry, cure, trim or separate parts of the marijuana plant.

“*Public Place*” has the same meaning prescribed in the Smoke-Free-Arizona Act, ARIZ. REV. STAT. § 36-601.01.

“*Smoke or Smoking*” means inhaling, exhaling, burning, or carrying or possessing any lighted marijuana product, including cigars, cigarettes, pipe marijuana or any other lighted marijuana product, whether natural or synthetic.

“*Sports Facilities*” has the same meaning as prescribed in the Smoke-Free Arizona Act, ARIZ. REV. STAT. § 36-601.01

15-30 Marijuana Prohibited on Public Property.

(a) The use, sale, cultivation, manufacture, production or distribution of marijuana or marijuana products is prohibited on property that is occupied, owned, controlled or operated by the city.

(b) The use, sale, cultivation, manufacture, production or distribution of marijuana or marijuana products is prohibited on property that is occupied, owned, controlled or operated by the state or a political subdivision of this state that has adopted rules, regulations or policies prohibiting the use, sale, cultivation, manufacture, production or distribution of marijuana or marijuana products on its property.

(c) It is unlawful for an individual to smoke marijuana in a public place, sports facility or open space in the city.

(d) Violation of this Section 15-30 shall be a petty offense.

15-31 Marijuana Establishment Prohibited; Dual Licensee Exception.

(a) To the fullest extent allowable by law, the operation of a marijuana establishment is prohibited in the city, except where authorized for a dual licensee who:

1. Operates both a nonprofit medical marijuana dispensary and a marijuana establishment cooperatively in a shared location; and
2. Has not forfeited or terminated the nonprofit medical marijuana dispensary license from the Department.

(b) To the fullest extent allowable by law, the operation of a marijuana establishment consisting of an offsite cultivation facility is prohibited in the city, except where authorized for:

1. A single cultivation facility for a nonprofit medical marijuana dispensary owned or controlled by a licensee holding a license in good standing from the Department for a medical marijuana dispensary.

2. A single cultivation facility for a retail marijuana establishment owned or controlled by a licensee holding a license in good standing from the Department for a retail marijuana establishment.

(c) If a licensee has surrendered, terminated or forfeited their license for a nonprofit medical marijuana dispensary or a retail marijuana establishment, their permit for the cultivation facility shall automatically terminate upon action by the Department

15-32 Marijuana Testing Facility Prohibited.

To the fullest extent allowable by law, the operation of a marijuana testing facility is prohibited in the city.

15-33 Marijuana Establishments Permitted; Nonresidential.

(a) It shall be unlawful for a person to operate a marijuana establishment at any location within the city without obtaining a medical marijuana dispensary and a retail marijuana establishment permit from the city in accordance with Section 13 of the City Zoning Ordinance, including any application and review procedures.

(b) If authorized by state law and a valid permit has been obtained from the city, a marijuana establishment is permitted in the city subject to the following conditions and limitations:

1. Shall be authorized for a dual licensee who operates both a nonprofit medical marijuana dispensary and marijuana establishment cooperatively in a shared location and has not forfeited or terminated the nonprofit medical marijuana dispensary license from the Department.

2. Shall meet the requirements contained in Section 13 of the City Zoning Ordinance.

3. Shall be located in a permanent building on an established foundation adhering to city building codes and shall not include any temporary, portable or self-powered mobile facilities, or trailer, cargo container or motor vehicle.

4. Shall have operating hours not earlier than 9:00 a.m. and not later than 8:00 p.m.

5. Shall not provide drive-thru services or offsite deliveries of marijuana or marijuana products.

6. Shall not allow a person to consume marijuana or marijuana products on the premises or provide outdoor seating areas.

7. Shall provide for proper disposal of marijuana remnants or by-products. The remnants or by-products shall not be identified as marijuana remnants in any trash bag or refuse container.
8. Shall not emit dust, fumes, vapors or odors into the environment from the facility and shall ensure that ventilation, air filtration, building and design standards are compatible with adjacent uses and the requirements of adopted building codes of the city.
9. Shall not sell marijuana or marijuana products, except as permitted by state law to consumers.
10. Shall not display or keep marijuana or marijuana products that are visible from outside the premises.
11. Shall comply with applicable county health regulations for food preparation and handling.
12. Shall comply with applicable laws to safely and securely engage in extraction processes.
13. Shall submit a written security plan to the city that describes the actions taken to deter and prevent unauthorized entrance into limited access areas including use of security equipment, exterior lighting to facilitate surveillance, and electronic monitoring such as video cameras.
14. For a marijuana establishment that engages in cultivation or manufacturing, shall submit a written operations plan to the city that describes the following:
 - (i) Procedures showing that the marijuana cultivation will be conducted in accordance with state and local laws and regulations regarding use and disposal of pesticides and fertilizers.
 - (ii) The legal water source, irrigation plan, wastewater systems to be used, and projected water use. The facility may be required to enter into a separate water service agreement with the city if the facility is determined by the Public Works Department to be a significant water use.
 - (iii) The plan for addressing odor and other public nuisances that may derive from the establishment.

15-34 Marijuana Permitted; Residential.

- (a) Marijuana possession, consumption, transportation, and cultivation is permitted in a residential zoning district, including but not limited to any mixed use or planned development districts that permit residential development in the city. The term residential zoning districts

shall include the designated districts in the City Zoning Ordinance, as amended. Marijuana possession, consumption, transportation and cultivation is only permitted subject to the following conditions and limitation:

1. It shall be unlawful for any individual who is at least twenty-one (21) years of age to possess, transport, cultivate or process more than six (6) marijuana plants.
2. It shall be unlawful for two or more individuals who are at least twenty-one (21) years of age to possess, transport, cultivate or process more than twelve (12) marijuana plants at the individuals' primary residence.
3. Except as provided by Ariz. Rev. Stat. § 36-2801 et al. and this Section 15-34, it shall be unlawful for an individual to otherwise cultivate marijuana in a residential zoning district within the city limits.
4. Individuals shall not process or manufacture marijuana by means of any liquid or gas, other than alcohol, that has a flashpoint below one hundred (100) degrees Fahrenheit.
5. Kitchen, bathrooms, and primary bedroom(s) shall be used for their intended use and shall not be used primarily for residential marijuana processing, manufacturing, or cultivation.
6. A residence shall not emit dust, fumes, vapors, or odors into the environment and individuals shall ensure that ventilation, air filtration, building and design standards are compatible with adjacent uses and the requirements of adopted building codes of city. It shall be a violation of this article for a residence to unreasonably emit dust, fumes, vapor or odors from the possession, consumption, transportation and cultivation that prevent adjacent property owners from the reasonable enjoyment of their property or to violate the terms of any odor control plan approved by the city.
7. Cultivation shall be limited to a closet, room, greenhouse, or other enclosed area on the grounds of the residence equipped with a lock or other security device that prevents access by minors.
8. Cultivation shall take place in an area where the marijuana plants are not visible from public view without using binoculars, aircraft, or other optical aids.

15-35 Marijuana Prohibited.

- (a) Marijuana products are prohibited on school grounds, inside school buildings, in school parking lots or playing fields, in school buses or vehicles. For purposes of this subsection, "school" means any public, charter or private school where children attend classes in kindergarten programs or grades one through twelve.
- (b) Subsection (a) of this Section 15-35 does not apply to an adult who employs marijuana products as a necessary component of a school sanctioned drug education program.

(c) Smoking is prohibited in all private residences when used as a licensed childcare, adult day care, or health care facility.

15-36 Unlawful Consumption in a motor vehicle.

(a) Pursuant to ARIZ. REV. STAT. § 36-2851.3 and ARIZ. REV. STAT. § 36-2851.8, authorizing the state to prohibit driving while impaired by marijuana to the slightest degree, it is unlawful for any person to:

1. Smoke or consume marijuana while operating or while within the passenger compartment of a motor vehicle that is located on any public highway or right-of-way of a public highway in this state.
2. Possess a lighted marijuana cigarette or an open package of marijuana infused edibles within the passenger compartment of a motor vehicle that is located on any public highway or right-of-way of a public highway in this state.

(b) A person who violates subsection (a) of this section is guilty of a class 2 misdemeanor.

(c) This Section 15-36 does not apply to:

1. A passenger in any bus, limousine, taxi or transportation network company vehicle as defined in ARIZ. REV. STAT. § 28-9551 while the vehicle is being used to provide transportation network services as defined in ARIZ. REV. STAT. § 28-9551.
2. A passenger in the living quarters of a motor home as defined in ARIZ. REV. STAT. §28-4301.

(d) For the purposes of this section:

1. "Motor vehicle" means any vehicle that is driven or drawn by mechanical power and that is designed primarily for use on public highways. Motor vehicle does not include a vehicle operated exclusively on rails.
2. "Passenger compartment" means the area of a motor vehicle designed for the seating of the driver and other passengers of the vehicle. Passenger compartment includes an unlocked glove compartment and any unlocked portable devices within the immediate reach of the driver or any passengers. Passenger compartment does not include the trunk, a locked glove compartment or the area behind the last upright seat of a motor vehicle that is not equipped with a trunk.
3. "Public highway or right-of-way of a public highway" means the entire width between and immediately adjacent to the boundary lines of every way maintained by the federal government, this state or a county, city or town.

15-37 Retail Sales from Marijuana and Marijuana Products.

To the fullest extent allowable by law, the sale of marijuana and marijuana products authorized within the city from a marijuana establishment is tangible personal property as defined in ARIZ. REV. STAT § 42-5001 and subject to the transaction privilege tax in the retail classification and use tax.

15-38 Fees.

The initial permit fee for a marijuana establishment pursuant to Section 15-33 is \$460.00 annually, until a fee is established by the city council by resolution. At such time as the council adjusts other fees of the city by resolution, this fee may be adjusted in such resolution. A dual licensee shall pay a permit fee for the marijuana establishment and a separate permit fee for the medical marijuana dispensary.

15-39 Violations.

- (a) It is unlawful and a violation of this article for a person to sell, cultivate, process, manufacture or transport marijuana or marijuana products if the person fails to meet all the requirements in this article or state law, including the Department's rules.
- (b) It is a violation of this article for any person to provide false information on any permit application.
- (c) Each day any violation of any provision of this article shall continue shall constitute a separate offense.

15-40 Enforcement; Penalties.

- (a) A permit may be revoked by the city for violation of any provision of this article, for any violation of the requirements of the permit, or if the Department revokes the license for a marijuana establishment or a medical marijuana dispensary. If a permit is revoked, the permittee shall have the right to appeal the decision of the city finding a violation of this article or the city code as outlined in Section 13-68 of the code.
- (b) Violations of this article are in addition to any other violation enumerated within the city ordinances or the city code and in no way limits the penalties, actions or abatement procedures which may be taken by the city for any violation of this article, which is also a violation of any other ordinance or code provision of the city or federal or state law. Conviction and punishment of judgment and civil sanction against any person under this article shall not relieve such person from the responsibility of correcting prohibited conditions, or removing prohibited structures or improvements, and shall not prevent the enforced correction or removal thereof.
- (c) Violations of ARIZ. REV. STAT. § 36-2853(B) shall be punished as set forth in the statute.

(d) Notwithstanding Subsection 15-40(c), all other violations of this article shall be a petty offense.

SECTION 2. All ordinances and parts of ordinances in conflict with the provisions of this Ordinance or any part of the Avondale City Code adopted herein by reference, are hereby repealed.

SECTION 3. In accordance with Article II, Sections 1 and 2, Constitution of Arizona, the City Council has considered the individual property rights and personal liberties of the residents of the City before adopting this Ordinance.

SECTION 4. This Ordinance does not affect the rights and duties that matured, penalties that were incurred, or proceedings that were begun before the effective date of this Ordinance.

SECTION 5. If any section, subsection, sentence, clause, phrase or portion of this Ordinance is for any reason to be held invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions thereof.

SECTION 6. Any person found guilty of violating a provision of this Ordinance shall be guilty of a petty offense. Each day that a violation continues shall be a separate offense punishable as herein described above.

SECTION 7. The immediate operation of this Ordinance is necessary to preserve public peace, health and safety by ensuring that recreational marijuana regulations are enacted in accordance with applicable law; therefore, an emergency is hereby declared to exist. This Ordinance shall be in full force and effect from and after its passage and approval by the City Council as required by law, and this Ordinance is hereby exempt from the referendum provisions of the constitution and laws of the State of Arizona.

SECTION 8. The Mayor, the City Manager, the City Clerk and the City Attorney are hereby authorized and directed to execute all documents and take all steps necessary to carry out the purpose and intent of this Ordinance.

[SIGNATURES ON FOLLOWING PAGE]

PASSED AND ADOPTED by the Council of the City of Avondale, Arizona,
January 19, 2021.

Kenneth N. Weise, Mayor

ATTEST:

Marcella Carrillo, City Clerk

APPROVED:

Nicholle Harris, City Attorney

CITY COUNCIL REPORT

SUBJECT: Ordinance 2006-0121 - Declaring as a Public Record and Adopting the Avondale Amendments to the 2018 International Fire Code.

MEETING DATE: 1/19/2021

TO: Mayor and Council

FROM: Dale Nannenga, Chief of Police, (623) 333-7207

THROUGH: Gina Montes, Assistant City Manager, (623) 333-1012

REVIEWED: Charles A. Montoya, City Manager, (623) 333-1016

PURPOSE:

City Council will consider a request to adopt Ordinance 2006-0121 declaring the 2018 International Fire Code and the 2021 Avondale Specific Amendments to the 2018 International Fire Code as public record and adopt them by reference and authorize the Mayor or City Manager, City Attorney and City Clerk to execute the necessary documents. The Council will take appropriate action.

BACKGROUND:

The City periodically updates its fire code to stay current with industry standards and nationally recognized life safety requirements and to align with currently adopted building codes. The Municipal Code Chapter 10 Fire Prevention and Protection currently enforces the 2012 International Fire Code Phoenix Edition and the 2017 Avondale Specific Amendments to the 2012 International Fire Code. These codes were adopted by City Council in August 2017.

DISCUSSION:

The City has been regularly adopting current versions of national codes since 1989. The most recent version available for adoption is the 2018 series. Many other cities in the valley are in the process of adopting or have adopted the 2018 International Fire Code. The Avondale Specific Amendments were developed through a collaboration with the Economic Development and Development and Engineering Services Departments to streamline the fire code with other municipal building codes and support development within the City of Avondale.

The 2021 Avondale Specific Amendments to the 2018 International Fire Code were posted to aVOICE on December 21, 2020 for public input. As of the date of this report, staff received two comments from the public so far that have not resulted in any necessary changes. Staff also provided the amendments to the Homebuilders Association of Central Arizona which resulted in staff answering questions but no changes.

BUDGET IMPACT:

There is no budgetary impact associated with this item.

RECOMMENDATION:

Staff recommends that the City Council approve an ordinance declaring the 2018 International Fire Code and the 2021 Avondale Specific Amendments to the 2018 International Fire Code as public record and adopt them by reference.

Summary of new amendments

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January 19, 2021

*Avondale Amendments
to the
2018 International Fire Code*

MARKED UP VERSION

NO HIGHLIGHT – Added to the amendments to improve readability

GREY HIGHLIGHT – Previously approved amendment

YELLOW HIGHLIGHT – New or modified requirement

The International Fire Code, 2018 Edition, as published by the International Code Council, is amended in the following respects:

Section 101 is deleted in its entirety and replaced with the following:

101.1 Title. These regulations shall be known as the Fire Code of **the City of Avondale**, hereinafter referred to as “this code”.

101.2 Scope. This code establishes regulations affecting or relating to structures, processes, premises and safeguards regarding all of the following:

1. The hazard of fire and explosion arising from the storage, handling or use of structures, materials or devices.
2. Conditions hazardous to life, property, or public welfare in the occupancy of structures or premises.
3. Fire hazards in the structure or on the premises from occupancy or operation.
4. Matters related to the construction, extension, repair, alteration or removal of fire suppression or alarm systems.
5. Conditions affecting the safety of fire fighters and emergency responders during emergency operations.

101.2.1 Appendices. The following appendices are adopted by the City of Avondale: Appendix E, F, G, H, I, L, and N.

101.3 Intent. The purpose of this code is to establish the minimum requirements consistent with nationally recognized good practice for providing a reasonable level of life safety and property protection from the hazards of fire, explosion or dangerous conditions in new and existing buildings, structures and premises, and to provide a reasonable level of safety to fire fighters and emergency responders during emergency operations.

101.4 Severability. If a section, subsection, sentence, clause or phrase of this code is, for any reason, held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this code.

101.5 Validity. In the event any part or provision of this code is held to be illegal or void, this shall not have the effect of making void or illegal any of the other parts or provisions hereof, which are determined to be legal; and it shall be presumed that this code would have been adopted without such illegal or invalid parts or provisions.

101.6 Responsible party. For the purpose of this code, unless a particular section, subsection or clause places compliance responsibility upon a different person, the property owner, the tenant or occupant in responsible control of the premises and the person, firm or corporation performing the work all have the duty to ensure that all applicable requirements of this code are complied with. Failure to comply with the provisions of this code or with a lawful order of the *fire marshal*, subjects the owner, the tenant, or the occupant, and the firm or corporation performing the work to the criminal penalties and civil remedies prescribed in Section 110.

Section 102 is deleted in its entirety and replaced with the following:

102.1 Construction and design provisions. The construction and design provisions of this code shall apply to:

1. Structures, facilities and conditions arising after the adoption of this code.
2. Existing structures, facilities, and conditions not legally in existence at the time of adoption of this code.
3. Existing structures, facilities, and conditions where required in Chapter 11.
4. Existing structures, facilities, and conditions that, in the opinion of the *fire marshal*, constitute a distinct hazard to life or property.

102.2 Administrative, operational and maintenance provisions. The administrative, operational and maintenance provisions of this code shall apply to:

1. Conditions and operations arising after the adoption of this code.

2. Existing conditions and operations.

102.3 City of Avondale Codes. The following locally adopted codes and terms shall replace the listed referenced documents and terms as follows:

1. Any references to the ICC Electrical Code shall be deleted and the words “electrical code adopted by the City of Avondale and amended from time to time” shall be inserted in lieu thereof.

2. Any references to the International Fuel Gas Code shall be deleted and the words “plumbing code adopted by the City of Avondale and amended from time to time” shall be inserted in lieu thereof.

3. Any references to the International Plumbing Code or the City of Phoenix Plumbing Code shall be deleted and the words “plumbing code adopted by the City of Avondale and amended from time to time” shall be inserted in lieu thereof.

4. Any references to the International Zoning Code shall be deleted and the words “zoning code adopted by the City of Avondale and amended from time to time” shall be inserted in lieu thereof.

5. Any references to the International Property Maintenance Code shall be deleted and the words “property maintenance code adopted by the City of Avondale and amended from time to time” shall be inserted in lieu thereof.

Any references to the International Private Sewage Disposal Code or International Energy Conservation Code shall be deleted.

102.4 Change of use or occupancy. A change of occupancy shall not be made unless the use or occupancy is made to comply with the requirements of this code and the *International Building Code*.

Exception: Where approved by the *fire marshal*, a change of occupancy shall be permitted without complying with the requirements of this code and the *International Building Code* for those groups, provided the new or proposed use is less hazardous, based on life and fire risk, than the existing use or occupancy.

102.5 Application of building code. The design and construction of new structures shall comply with the *International Building Code*, and any *alterations*, additions, changes in use or changes in structures required by this code, which are within the scope of the *International Building Code*, shall be made in accordance therewith.

102.6 Application of residential code. Where structures are designed and constructed in accordance with the *International Residential Code*, the provisions of this code shall apply as follows:

1. Construction and design provisions of this code pertaining to the exterior of the structure shall apply including, but not limited to, premises identification, fire apparatus access and water supplies. Where interior or exterior systems or devices are installed, construction permits required by Section 105.7 of this code shall apply.

2. Construction and design provisions of this code pertaining to the installation of fire sprinklers for structures exceeding 5,000 square feet in area. Where interior systems or devices are installed, construction permits required by Section 105.7 of this code shall apply.

3. Administrative, operational, maintenance, and **hazardous materials** provisions of this code shall apply.

102.7 Historic buildings. The provisions of this code relating to the construction, *alteration*, repair, enlargement, restoration, relocation or moving of buildings or structures shall not be mandatory for existing buildings or structures identified and classified by the state or local jurisdiction as historic buildings where such buildings or structures do not constitute a distinct hazard to life or property. Fire protection in designated historic buildings shall be provided with an *approved* fire protection plan as required in Section 1103.1.1.

102.8 Referenced codes and standards. The codes and standards referenced in this code shall be those that are listed in Chapter 80, and such codes and standards shall be considered to be part of the requirements of this code to the prescribed

extent of each such reference and as further regulated in Sections 102.7.1 and 102.7.2.

102.8.1 Conflicts. Where conflicts occur between provisions of this code and referenced codes and standards, the provisions of this code shall apply.

102.8.2 Provisions in referenced codes and standards. Where the extent of the reference to a referenced code or standard includes subject matter that is within the scope of this code, the provisions of this code, as applicable, shall take precedence over the provisions in the referenced code or standard.

102.9 Subjects not regulated by this code. Where applicable standards or requirements are not set forth in this code, or are contained within other laws, codes, regulations, ordinances or bylaws adopted by the jurisdiction, compliance with applicable standards of the National Fire Protection Association or other nationally recognized fire safety standards, as *approved*, shall be deemed as prima facie evidence of compliance with the intent of this code. Nothing herein shall derogate from the authority of the *fire marshal* to determine compliance with codes or standards for those activities or installations within the *fire marshal's* jurisdiction or responsibility.

102.10 Matters not provided for. Requirements that are essential for the public safety of an existing or proposed activity, building or structure, or for the safety of the occupants thereof, that are not specifically provided for by this code, shall be determined by the *fire marshal*.

102.11 Conflicting provisions. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable. Where, in a specific case, different sections of this code specify different materials, methods of construction or other requirements, the most restrictive shall govern.

102.12 Other laws. The provisions of this code shall not be deemed to nullify any provisions of local, state or federal law.

102.13 Application of references. References to chapter or section numbers, or to provisions not specifically identified by number, shall be construed to refer to such chapter, section or provision of this code.

Section 103 DEPARTMENT OF FIRE PREVENTION is re-titled and amended as follows:

Title: **SECTION 103 COMMUNITY RISK REDUCTION DIVISION**

Section 103.1 is deleted in its entirety and replaced with the following:

103.1 General. The Community Risk Reduction Division is established within the City of Avondale under the direction of the *fire marshal*. The function of this Division shall be the implementation, administration and enforcement of the provisions of this code. Any references to the fire code official, within this code, shall be deleted and replaced with *fire marshal*.

Section 104 is deleted in its entirety and replaced with the following:

104.1 General. The *fire marshal* is hereby authorized to enforce the provisions of this code. The *fire marshal* shall have the authority to render interpretations of this code, and to adopt policies, procedures, rules and regulations in order to clarify the application of its provisions. Such interpretations, policies, procedures, rules and regulations shall be in compliance with the intent and purpose of this code. Such policies, procedures, rules and regulations shall not have the effect of waiving requirements specifically provided for in this code.

104.2 Applications and permits. The *fire marshal* is authorized to receive applications, review *construction documents* and issue permits for construction regulated by this code, issue permits for operations regulated by this code, inspect the premises for which such permits have been issued and enforce compliance with the provisions of this code.

104.3 Right of entry. Where it is necessary to make an inspection to enforce the provisions of this code, the City Code, a department policy, or where the *fire marshal* has reasonable cause to believe that there exists in a building or upon any premises any conditions or violations of this code that make the building or premises unsafe, dangerous or hazardous, the *fire marshal* shall have the authority to enter the building or premises at all reasonable times to inspect or to perform the duties imposed upon the *fire marshal* by this code. If such building or premises is occupied, the *fire marshal* shall present

credentials to the occupant and request entry. If such building or premises is unoccupied, the fire marshal shall first make a reasonable effort to locate the owner, the owner's authorized agent or other person having charge or control of the building or premises and request entry. If entry is refused, the fire marshal has recourse to every remedy provided by law to secure entry.

104.4 Warrant. As set forth herein, the fire marshal may seek the issuance of an inspection warrant by the judge if the fire marshal is denied access to any property, building or structure that the fire marshal has authority to inspect. The fire marshal shall, in a supporting affidavit, establish that there is probable cause that a violation of this Code or the City Code exists and that the proposed inspection is reasonable and necessary. Probable cause may be established based on any of the following:

1. Previous inspections have shown violations and the present inspection is necessary to determine whether those violations have been abated.
2. Complaints have been received and presented to the fire marshal from persons, who by status or position have personal knowledge of the violations of law occurring on the subject property, building or structure.
3. A construction permit has been issued and the present inspection is necessary to determine conformance with this code.
4. An operational permit has been issued and the present inspection is necessary to determine conformance with this code.
5. The inspection of the premises in question was to be made pursuant to an administrative plan containing neutral criterion supporting the need for the inspection.

104.4.1 Occupied Properties. In executing an inspection warrant on an occupied property, the fire marshal shall, before entry, make a reasonable effort to present the person's credentials, authority and purpose to the owner, occupant, agent, manager or person in possession of the property and produce the warrant or a copy thereof upon request. A copy of the warrant shall be left with the owner, occupant, agent, manager or person in possession of the property.

104.4.2 Unoccupied Properties. In executing an inspection warrant on an unoccupied property, the fire marshal authorized to execute the warrant need not inform anyone of the person's authority and purpose, but may promptly enter the designated property if it is at the time unoccupied or not in the possession of any person or at the time reasonably believed to be in such condition. In such case, a copy of the inspection warrant shall be conspicuously posted on the property.

104.4.3 Refusal. Any person who willfully refuses to permit an inspection lawfully authorized by warrant issued pursuant to this section is guilty of a class 1 misdemeanor.

104.4.4 Execution. An inspection warrant shall be executed within five (5) calendar days from its issuance. The warrant shall be returned to the city Judge within three (3) court business days after the inspection warrant is executed.

104.5 Identification. The *fire marshal* shall carry proper identification when inspecting structures or premises in the performance of duties under this code.

104.6 Orders, notices, and tags. The fire marshal is authorized to issue such notices or orders as are required to affect compliance with this code in accordance with **Section 110**.

104.7 Official records. The *fire marshal* shall keep official records as **required by the State of Arizona General Retention Schedules**.

EXCEPTION: Official records of activities conducted on behalf of the Office of the State Fire Marshal shall be retained for a period of five years.

104.8 Approved materials and equipment. Materials, equipment and devices *approved* by the *fire marshal* shall be constructed and installed in accordance with such approval.

104.8.1 Material and equipment reuse. Materials, equipment and devices shall not be reused or reinstalled unless such elements have been reconditioned, tested and placed in good and proper working condition and *approved*.

104.8.2 Technical assistance. To determine the acceptability of technologies, processes, products, facilities, materials and uses attending the design, operation or use of a building or premises subject to inspection by the *fire marshal*, the *fire marshal* is authorized to require the *owner* or owner's authorized agent to provide, without charge to the jurisdiction, a technical opinion and report. The opinion and report shall be prepared by a qualified engineer, specialist, laboratory or fire safety specialty organization acceptable to the *fire marshal* and shall analyze the fire safety properties of the design, operation or use of the building or premises and the facilities and appurtenances situated thereon, to recommend necessary changes. The *fire marshal* is authorized to require design submittals to be prepared by, and bear the stamp of, a registered design professional.

104.9 Modifications. Where there are practical difficulties involved in carrying out the provisions of this code, the *fire marshal* shall have the authority to grant modifications for individual cases, provided the *fire marshal* shall first find that special individual reason makes the strict letter of this code impractical and the modification is in compliance with the intent and purpose of this code and that such modification does not lessen health, life and fire safety requirements. The details of action granting modifications shall be recorded and entered in the files of the department of fire prevention.

104.10 Alternative materials, design and methods of construction and equipment. The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative has been *approved*. An alternative material, design or method of construction shall be approved where the *fire marshal* finds that the proposed design is satisfactory and complies with the intent of the provisions of this code, and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in this code in quality, strength, effectiveness, *fire resistance*, durability and safety. Where the alternative material, design or method of construction is not approved, the *fire marshal* shall respond in writing, stating the reasons why the alternative was not approved.

104.10.1 Research reports. Supporting data, where necessary to assist in the approval of materials or assemblies not specifically provided for in this code, shall consist of valid research reports from *approved* sources.

104.10.2 Tests. Where there is insufficient evidence of compliance with the provisions of this code, or evidence that a material or method does not conform to the requirements of this code, or in order to substantiate claims for alternative materials or methods, the *fire marshal* shall have the authority to require tests as evidence of compliance to be made at no expense to the jurisdiction. Test methods shall be as specified in this code or by other recognized test standards. In the absence of recognized and accepted test methods, the *fire marshal* shall approve the testing procedures. Tests shall be performed by an *approved* agency. Reports of such tests shall be retained by the *fire marshal* for the period required for retention of public records.

104.11 Fire investigations. The fire department shall investigate or cause to be investigated promptly the cause, origin and circumstance of each and every fire occurring in the jurisdiction involving loss of life or injury to a person or destruction or damage to property, and if it appears to the member of the fire department making the investigation that such fire is of suspicious origin, the member shall notify the appropriate law enforcement agency and shall secure the site until the law enforcement agency takes control of the site. The fire investigator shall continue to pursue the investigation to its conclusion.

104.11.1 Assistance from other agencies. Police, Maricopa County Arson Task Force, other fire departments, and enforcement agencies shall have authority to render necessary assistance in the investigation of fires when requested to do so.

104.12 Authority at fires and other emergencies. The fire chief or officer of the fire department in charge at the scene of a fire or other emergency involving the protection of life or property, or any part thereof, shall have the authority to direct such operation as necessary to extinguish or control any fire, perform any rescue operation, investigate the existence of suspected or reported fires, gas leaks or other hazardous conditions or situations, or take any other action necessary in the reasonable performance of duty. In the exercise of such power, the fire chief is authorized to prohibit any person, vehicle, vessel or thing from approaching the scene, and is authorized to remove, or cause to be removed or kept away

from the scene, any vehicle, vessel or thing that could impede or interfere with the operations of the fire department and, in the judgment of the fire chief, any person not actually and usefully employed in the extinguishing of such fire or in the preservation of property in the vicinity thereof.

104.12.1 Barricades. The fire chief or officer of the fire department in charge at the scene of an emergency is authorized to place ropes, guards, barricades or other obstructions across any street, alley, place or private property in the vicinity of such operation so as to prevent accidents or interference with the lawful efforts of the fire department to manage and control the situation and to handle fire apparatus.

104.12.2 Obstructing operations. Persons shall not obstruct the operations of the fire department in connection with extinguishment or control of any fire, or actions relative to other emergencies, or disobey any lawful command of the fire chief or officer of the fire department in charge of the emergency, or any part thereof, or any lawful order of a police officer assisting the fire department.

104.12.3 Systems and devices. Persons shall not render a system or device inoperative during an emergency unless by direction of the fire chief or fire department official in charge of the incident.

Section 105.6.15 is deleted in its entirety.

Section 105.6.16 is deleted in its entirety and replaced with the following:

105.6.16 Flammable and Combustible Liquids. An operational permit is required;

1. To use or operate a pipeline for the transportation within facilities of flammable or combustible liquids. This requirement shall not apply to the off- site transportation in pipelines regulated by the Department of Transportation (DOTn) nor does it apply to piping systems.
2. To store, handle or use Class I liquids in excess of 5 gallons (19 L) in a building or in excess of 10 gallons (37.9 L) outside of a building, except that a permit is not required for the following:
 - 2.1. The storage or use of Class I liquids in the fuel tank of a motor vehicle, aircraft, motorboat, mobile power plant or mobile heating plant, unless such storage, in the opinion of the fire marshal, would cause an unsafe condition.
 - 2.2. The storage or use of paints, oils, varnishes, or similar flammable mixtures when such liquids are stored for maintenance, painting or similar purposes for a period of not more than 30 days.
3. To store, handle or use Class II or Class IIIA liquids in excess of 25 gallons (95 L) in a building or in excess of 60 gallons (227 L) outside a building, except for fuel oil used in connection with oil- burning equipment.
4. To store, handle, or use Class IIIB liquids in tanks or portable tanks for fueling motor vehicles at motor fuel-dispensing facilities or where connected to fuel-burning equipment.

Exception: Fuel oil and used motor oil used for space heating or water heating.

5. To remove Class I or II liquids from an under- ground storage tank used for fueling motor vehicles by any means other than the approved, stationary on-site pumps normally used for dispensing purposes.
6. To operate refineries, distilleries, plants, terminals, wells, and similar facilities where flammable and

combustible liquids are produced, processed, transported, stored, dispensed or used.

7. To place temporarily out of service (for more than 90 days) an underground, protected above-ground or above-ground flammable or combustible liquid tank.

8. To change the type of contents stored in a flammable or combustible liquid tank to a material that poses a greater hazard than that for which the tank was designed and constructed.

9. To manufacture, process, blend or refine flammable or combustible liquids.

10. To engage in the dispensing of liquid fuels into the fuel tanks of motor vehicles at racetracks, commercial, industrial, governmental or manufacturing establishments in accordance with Section 5706.5.4 or to engage in on-demand mobile fueling operations in accordance with Section 5707.

11. To utilize a site for the dispensing of liquid fuels from tank vehicles into the fuel tanks of motor vehicles, marine craft and other special equipment at commercial, industrial, governmental, construction or manufacturing establishments.

Section 105.6.20 is deleted in its entirety and replaced with the following:

105.6.20 Hazardous Materials. An operational permit is required to store, transport on site, dispense, use or handle hazardous materials in excess of the amounts listed in Table 105.6.20. A hazardous materials assessment fee shall be established by the City Council as part of the annual budget process or as otherwise adopted by City Council resolution and shall be required for the annual inventory assessment, administrative process and code research activities.

Section 105.7 is deleted and replaced with the following:

105.7 Required construction permits. The fire marshal is authorized to issue construction permits for work as set forth in Section 105.7.1 through 105.7.28.

105.7.1 Access. A construction permit is required for premise identification review, identification of fire protection equipment, key boxes, stairwell identification, and address directories. Maintenance performed in accordance with this code is not considered to be a modification and does not require a permit.

105.7.2 Automatic fire-extinguishing systems. A construction permit is required for installation of or modification to an automatic fire-extinguishing system. Maintenance performed in accordance with this code is not considered to be a modification and does not require a permit.

105.7.3 Battery systems. A permit is required to install stationary storage battery systems regulated by Section 1206.2.

105.7.4 Capacitor energy storage systems. A permit is required to install capacitor energy storage systems regulated by Section 1206.3.

105.7.5 Compressed gases. Where the compressed gases in use or storage exceed the amounts listed in Table 105.6.9, a construction permit is required to install, repair damage to, abandon, remove, place temporarily out of service, or close or substantially modify a *compressed gas* system.

Exceptions:

1. Routine maintenance.

2. For emergency repair work performed on an emergency basis, application for permit shall be made within two working days of commencement of work.

105.7.6 Cryogenic fluids. A construction permit is required for installation of or *alteration* to outdoor stationary *cryogenic fluid* storage systems where the system capacity exceeds the amounts listed in Table 105.6.11. Maintenance performed in accordance with this code is not considered to be an *alteration* and does not require a construction permit.

105.7.7 Emergency responder radio coverage system. A construction permit is required for installation of or modification to emergency responder radio coverage systems and related equipment. Maintenance performed in accordance with this code is not considered to be a modification and does not require a construction permit.

105.7.8 Fire alarm and detection systems and related equipment. A construction permit is required for installation of or modification to fire alarm and detection systems and related equipment. Maintenance performed in accordance with this code is not considered to be a modification and does not require a construction permit.

105.7.9 Fire apparatus access roads. A construction permit is required to install or modify temporary or permanent fire apparatus access roads and fire lane markings.

105.7.10 Fire pumps and related equipment. A construction permit is required for installation of or modification to fire pumps and related fuel tanks, jockey pumps, controllers and generators. Maintenance performed in accordance with this code is not considered to be a modification and does not require a construction permit.

105.7.11 Firefighter breathing air system. A construction permit is required for installation of or modification of a firefighter breathing air system.

105.7.12 Flammable and combustible liquids. A construction permit is required:

1. To install, repair or modify a pipeline for the transportation of flammable or *combustible liquids*.
2. To install, construct or alter tank vehicles, equipment, tanks, plants, terminals, wells, fuel-dispensing stations, refineries, distilleries and similar facilities where flammable and *combustible liquids* are produced, processed, transported, stored, dispensed or used.
3. To install, alter, remove, abandon or otherwise dispose of a flammable or *combustible liquid* tank.

105.7.13 Fuel cell power systems. A construction permit is required to install stationary fuel cell power systems.

105.7.14 Gas detection systems. A construction permit is required for the installation of or modification to gas detection systems. Maintenance performed in accordance with this code is not considered to be a modification and does not require a construction permit.

105.7.15 Gates and barricades. A construction permit is required for the installation of or modification to required pedestrian and vehicular gate or barricade. Maintenance performed in accordance with this code is not considered to be a modification and does not require a construction permit.

105.7.16 Hazardous materials. A construction permit is required to install, repair damage to, abandon, remove, place temporarily out of service, or close or substantially modify a storage facility or other area regulated by Chapter 50 where the hazardous materials in use or storage exceed the amounts listed in Table 105.6.21.

Exceptions:

1. Routine maintenance.
2. For repair work performed on an emergency basis, application for permit shall be made within two working days of commencement of work.

105.7.17 High-piled combustible storage. A construction permit is required for the installation of or modification to a structure exceeding 500 square feet, including aisles, for high-piled combustible storage. Maintenance performed in accordance with this code is not considered to be a modification and does not require a construction permit.

105.7.18 Industrial ovens. A construction permit is required for installation of industrial ovens covered by Chapter 30.

Exceptions:

1. Routine maintenance.
2. For repair work performed on an emergency basis, application for permit shall be made within two working days of commencement of work.

105.7.19 LP-gas. A construction permit is required for installation of or modification to an LP-gas system. Maintenance performed in accordance with this code is not considered to be a modification and does not require a permit.

105.7.20 Motor vehicle repair rooms and booths. A construction permit is required to install or modify a motor vehicle repair room or booth. Maintenance performed in accordance with this code is not considered to be a modification and does not require a permit.

105.7.21 Plant extraction systems. A construction permit is required to install or modify a plant extraction system. Maintenance performed in accordance with this code is not considered to be a modification and does not require a permit.

105.7.22 Private fire hydrants and fire service mains. A construction permit is required to install or modify private fire hydrants, and private fire service mains.

105.7.23 Smoke control or smoke exhaust systems. Construction permits are required for installation of or alteration to smoke control or smoke exhaust systems. Maintenance performed in accordance with this code is not considered to be an alteration and does not require a permit.

105.7.24 Solar photovoltaic power systems. A construction permit is required to install or modify solar photovoltaic power systems on or adjacent to commercial structures. Maintenance performed in accordance with this code is not considered to be a modification and does not require a permit.

105.7.25 Special event structure. A single construction permit is required to erect and take down a temporary special event structure.

105.7.26 Spraying or dipping. A construction permit is required to install or modify a spray room, dip tank or booth. Maintenance performed in accordance with this code is not considered to be a modification and does not require a permit.

105.7.27 Standpipe systems. A construction permit is required for the installation, modification or removal from service of a standpipe system. Maintenance performed in accordance with this code is not considered to be a modification and does not require a permit.

105.7.28 Temporary membrane structures and tents. A construction permit is required to erect an air-supported temporary membrane structure, a temporary stage canopy or a tent having an area in excess of 400 square feet (37 m²).

Exceptions:

1. Tents used exclusively for recreational camping purposes.

2. Funeral tents and curtains, or extensions attached thereto, when used for funeral services.
3. Tents and awnings open on all sides, which comply with all of the following:
 - 3.1. Individual tents shall have a maximum size of 700 square feet (65 m²).
 - 3.2. The aggregate area of multiple tents placed side by side without a fire break clearance of not less than 12 feet (3658 mm) shall not exceed 700 square feet (65 m²) total.
 - 3.3. A minimum clearance of 12 feet (3658 mm) to structures and other tents shall be maintained.

Section 106 is deleted in its entirety and replaced with the following:

106.1 Fees. A permit shall not be issued until the fees have been paid, nor shall an amendment to a permit be released until the additional fee, if any, has been paid.

106.2 Schedule of permit fees. The fees for plan review, appeals, fire watch personnel, construction and operational permits, inspections, and certificates shall be in accordance with the city adopted fee schedule, as amended.

106.3 Work commencing before permit issuance. A person who commences any work, activity or operation regulated by this code before obtaining the necessary permits shall be subject to an additional fee in accordance with the city adopted fee schedule, which shall be in addition to the required permit fees.

106.4 Related fees. The payment of the fee for the construction, *alteration*, removal or demolition of work done in connection to or concurrently with the work or activity authorized by a permit shall not relieve the applicant or holder of the permit from the payment of other fees that are prescribed by law.

106.5 Refunds. The fire marshal may authorize a refund under the following circumstances upon written application filed by the original permittee not later than 90 days after the date of fee payment.

1. The fire marshal shall be permitted to authorize refunding of a fee paid hereunder which was erroneously paid or collected.
2. The *fire marshal* shall be permitted to authorize refunding of not more than 80 percent of the permit fee paid when no work has been done under a permit issued in accordance with this code.
3. The *fire marshal* shall be permitted to authorize refunding of not more than 80 percent of the plan review fee paid when an application for a permit for which a plan review fee has been paid is withdrawn or canceled before any examination time has been expended.

Section 107.5 is added to read as follows:

107.5 Re-inspection. A re-inspection fee may be assessed for each inspection or re-inspection when such portion of work for which inspection is called or scheduled is not complete or when corrections are not made. If the items that were identified during the previous inspection are not corrected at the time of the re-inspection, no further fire inspections will be scheduled until a re-inspection fee is paid. Re-inspection fees may also be assessed when the permit is not posted or otherwise available on the work site, the *approved* plans are not readily available to the inspector, for failure to provide access on the date and time for which inspection is requested, failure to have a competent party on-site or for deviating from plans requiring the approval of the *fire marshal*; or failing to provide the correct address so that an inspection cannot be made as scheduled. Each re-inspection will be assessed this fee.

Section 110 is deleted in its entirety and replaced with the following sections,

Title: SECTION 110 ENFORCEMENT

110.1 General.

1. The city shall proceed either civilly or criminally against any person who is found to be responsible for causing, permitting, facilitating, or aiding or abetting any violation of any provision of this code or for failing to

perform any act or duty required by this chapter. A written notice of violation shall be issued to the alleged violator, in accordance with the provisions of Section 110.3. If the violation is not remedied within the time frame specified in the notice of violation, a citation may be issued.

2. Each day a violation of any provision of this chapter or the failure to perform any act or duty required by this code continues shall constitute a separate violation or offense.
3. It shall be unlawful for any responsible party who has received a notice of a violation to sell, transfer, mortgage, lease or otherwise dispose of such property until the provisions of this code have been complied with, or until such responsible party first furnishes the grantee, transferee, mortgagee or lessee a true copy of any notice issued by the fire marshal or his authorized designee and furnishes to the fire marshal or his authorized designee a signed and notarized statement from the grantee, transferee, mortgagee or lessee acknowledging the receipt of such notice and fully accepting the responsibility without condition for making the corrections or repairs required by such notice.
4. When two (2) or more persons have liability to the city or are responsible for a violation of this code, their responsibility shall be joint and several.
5. Violations of this code are in addition to any other violation enumerated within the City Code and in no way limit the penalties, actions or procedures which may be taken by the city for any violation of this chapter which is also a violation of any other provision of the City Code or any other applicable law. The remedies specified herein are cumulative and the city may proceed under these or any other remedies authorized by law.
6. Any responsible party failing to comply with the provisions of this chapter shall be deemed guilty of a misdemeanor for those offenses deemed criminal under this chapter or a civil violation for all other offenses.

110.2 Owner of record. The owner(s) of record, as recorded in the Maricopa County Recorder's Office or as stated on the Maricopa County Assessor's Office tax bill, may be presumed to have lawful control over any building or parcel of land.

110.3 Notice of Violation. The fire marshal or his authorized designee shall seek voluntary compliance with the provisions of this code before issuing a civil citation or criminal complaint, as applicable. This shall include a written notice of violation served on the responsible person or persons.

1. A notice of violation may be issued by the fire marshal or their deputies, any code enforcement officer, police officer, or other city agent or employee duly authorized by the city manager.
2. A notice of violation shall include:
 - a. Identification of the property or location of the violation;
 - b. A statement of the violation(s) in sufficient detail to allow a responsible party to identify and correct the problem;
 - c. A re-inspection date; and
 - d. The name of the person at the city to contact for further information.
3. A notice of violation shall be deemed effective on the date when the written notice is:
 - a. Hand delivered in person to the owner, occupant, manager, or agent of the premises where the violation has occurred, or to the person responsible for the violation.
 - b. Posted on or about the entrance of the premises where the violation occurred.
 - c. Mailed by certified or first-class mail, postage prepaid addressed to the owner, occupant, agent, manager or responsible person at the last known mailing

address and three business days have elapsed.

d. Served on the owner, occupant, agent, manager or responsible person by the same manner as provided in the Arizona Rules of Civil Procedure.

e. For the purpose of parking violations, placed on the subject vehicle's windshield or mailed by certified or first-class mail to the subject vehicle's registered owner's last known address with the Arizona Motor Vehicle Division.

4. Except in cases involving health and safety violations, imminent hazards, recidivist offenders, or as otherwise prescribed by ordinance, a responsible person will be provided with an appropriate time for compliance.

5. Failure of the responsible party, property owner, occupant, manager or authorized agent of the property owner to receive a notice of violation shall not preclude the subsequent issuance of a civil citation or criminal complaint, as applicable.

6. Nothing in this section shall prevent the city from taking immediate action to protect the public from an imminent hazard to health or safety as otherwise provided by law.

110.4 Civil citations.

1. Unless otherwise designated as a criminal offense in this code, if a violation continues past the time provided for voluntary compliance in the notice of violation, a civil citation may be issued to the person responsible for the violation.

2. A civil citation may be issued by the fire marshal or their deputies, any code enforcement officer, inspector, police officer, or other city agent or employee duly authorized by the city manager.

3. The citation shall include the date of the violation, the location of the property and reference(s) to the section(s) of the code violated.

4. The citation shall direct the defendant to pay the fine imposed pursuant to Section 110.5 or appear in municipal court within ten (10) days of the issuance of the citation.

5. The citation shall provide notice that if the defendant fails to pay the fine or appear in city court as directed, a default judgment will be entered in the amount of the fine designated on the citation for the violation. In addition, a default fee may be imposed for failure to appear as set forth in Section 110.5.

6. Service of the citation may be accomplished and will be deemed proper and complete by any of the following means:

1. Hand delivering the citation to the defendant.

b. Mailing a copy of the citation by certified or registered mail, return receipt requested, to the defendant's last known address. If the citation is returned showing that the certified mail was not delivered, a copy thereof shall be posted in a conspicuous place in or about the structure affected by such citation.

c. Any means allowed by the Arizona Rules of Civil Procedure for the Superior Court.

d. Service of a citation for a parking violation may be accomplished by placing a copy of the citation on the subject vehicle's windshield or by mailing the citation by certified or registered mail, return receipt requested to the subject vehicle's registered owner's last known address on file with the Arizona Motor Vehicle Division.

110.5 Civil procedure.

1. The defendant shall, within ten (10) days of the issuance of the citation, either pay the fine indicated on the citation or appear in city court to admit or deny the allegations contained in the citation.
 - a. The defendant may pay the fine in person or by mailing the citation with a check for the amount of the fine to the city court. By paying the fine, the defendant admits the violation described in the citation and accepts responsibility for the offense.
 - b. The defendant may appear in person or through an attorney in city court and either admit or deny the allegations contained in the citation. If the defendant admits the allegations, the court shall immediately enter a judgment against the defendant in the amount of the fine for the violation charged. If the defendant denies the allegations contained in the citation, the court shall set a hearing date for the matter.
2. If the defendant fails to pay the fine or appear in city court as directed by the citation, the court shall enter a default judgment and impose the fine and default fee required by Section 110.6.
3. If the defendant fails to appear at the time and place set for hearing by the court, the court shall enter a default judgment and impose the fine and default fee required by Section 110.6.
4. The Arizona Rules of Procedure in Civil Traffic Violation cases shall be followed by the city court for civil violations of this chapter, except as modified or where inconsistent with the provisions of this chapter, local rules of the city court or rules of the Arizona Supreme Court.

110.6 Civil penalties.

1. Any person that violates this chapter shall be subject to a civil penalty of two hundred fifty dollars (\$250.00) base fine for the first violation, five hundred dollars (\$500.00) base fine for a second violation and one thousand dollars (\$1,000.00) base fine for a third violation in any twenty-four-month period. The dates of the offenses are the determining factor for calculating the twenty-four-month period.
2. Any defendant that fails to pay the fine or appear in municipal court as directed by a citation issued pursuant to this chapter, or who fails to appear at the time and place set for hearing of a matter arising under this chapter, shall be subject to an additional default fee as established by the city court.
3. Any judgments issued by the city court shall be subject to all surcharges and fees imposed by state law in addition to the civil fines required by this chapter.
4. Judgments shall be collected in the same manner as any other civil judgment as provided by law.

110.7 Recidivist offenders. Any person deemed to be a recidivist offender shall be penalized and fined subject to the provisions of Section 1-9(d)(6) of the City Code.

110.8 Criminal complaints. The fire marshal or any other city agent or employee duly authorized by the city manager may seek the issuance of a criminal complaint by a police officer or the Avondale City Prosecutor for criminal prosecution of any person who commits a criminal offense as set forth in this chapter.

1. Every criminal action and proceeding under this chapter shall be designated a class one misdemeanor and commenced and prosecuted in accordance with the laws of the State of Arizona relating to misdemeanors and the Arizona Rules of Criminal Procedure.
2. Upon conviction of a person for a criminal offense, the court may impose any combination of the following:
 - a. A sentence of incarceration not to exceed six (6) months in jail.
 - b. A base fine not to exceed two thousand five hundred dollars (\$2,500.00), exclusive of penalty assessments

prescribed by law.

c. A term of probation.

d. Notwithstanding the elective penalty above, a recidivist offender shall be subject to the penalties set forth in Chapter 1 of the City Code.

110.9 Abatement costs.

1. If the owner or occupant of any property within the city does not remove or abate from its property a violation that constitutes a hazard to public health and safety within thirty (30) days after written notice has been served by the city, the city may, at the expense of the owner or occupant, remove or cause the removal thereof and the record owner shall be liable for all costs incurred. The notice shall include the estimated cost of such removal to the city if the owner or occupant does not comply.
2. Any person who places, deposits, leaves or causes in or upon any public street, alleyway, sidewalk, park or other city building or property a violation that constitutes a hazard to public health and safety shall be liable for all costs incurred by the city to remove or clean up such violation.
3. When the city has affected removal or abatement of a violation that constitutes a hazard to public safety from any building or property pursuant to this section, the actual cost of such removal, including twenty-five (25) percent for additional inspection and other incidental costs in connection therewith, shall become an assessment upon the building or real property from which such violation is removed. The owner of record of such property shall be liable for the payment of same. If the actual cost for removal, including twenty-five (25) percent for additional inspection and other incidental costs in connection therewith, has not been paid within thirty (30) days of billing by the city, such assessment shall be recorded in the office of the county recorder. From the date of the recording it shall be a lien on such building or property until paid. Such liens shall be prior and superior to all other liens, obligations, mortgages or other encumbrances, except liens for general taxes.
4. A prior assessment against the building or property shall not be a bar to a subsequent assessment or assessments for such purposes, and any number of liens on the same property may be enforced in the same action.
5. A notice of abatement or assessment may be appealed to the city manager for an administrative hearing for review of such notice. A request for an administrative hearing shall be made within the time frame prescribed for compliance in the notice and within thirty (30) calendar days from the date of the assessment.

110.10 Administrative Appeal. Whenever a violation of this code has been found and the applicant wishes to appeal the decision of the fire marshal or his authorized designee because the code or the rules legally adopted there under have been incorrectly interpreted or an equivalent method of protection or safety is proposed, an appeal may be filed as follows:

1. The applicant shall file a written appeal, within ten (10) working days after receiving notice of the violation. The appeal shall be filed with the City Manager or his authorized designee and a copy filed with the Fire Chief. Upon filing, the applicant may request an informal review before the fire marshal.
2. The appeal will be heard by the City Manager or his designee within 15 working days after the request is filed. The City Manager, or an authorized representative, may use a Committee consisting of such staff as is deemed appropriate to provide advice on the appeal.
3. The applicant shall provide specific information on the basis for the appeal and the relief requested.
4. If the City Manager upholds the decision of the fire marshal, the applicant shall comply with the requirement(s) of the fire code.

Section 112.4 is modified to read as follows:

112.4 Failure to comply; fees. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable for penalties subject to the provisions of Section 10-42 of the City Code.

Section 307 is deleted in its entirety and replaced with the following:

307.1 General. A person shall not kindle or maintain or authorize to be kindled or maintained any *open burning*, bonfires, recreational fires, or portable outdoor fireplaces unless conducted and *approved* in accordance with Sections 307.2 through 307.7.

307.2 Burning prohibited. Open burning, bonfires, recreational fires, and portable outdoor fireplaces shall be prohibited when restricted by the Maricopa County Air Quality Department, or when the *fire marshal* determines local circumstances make such fires hazardous.

307.3 Inappropriate Fuel. An inappropriate fuel includes, but is not limited to: leaves, grass clippings, green plants, refuse, paper, rubbish, books, magazines, fiberboard, packaging, rags, fabrics, animal waste, animal carcasses, coal, waste oil, liquid or gelatinous hydrocarbons, tar, asphalt products, waste petroleum products, paints and solvents, chemically soaked wood, wood with a moisture content of greater than 20 percent, treated wood, plastic or plastic products, rubber or rubber products, office records, sensitive or classified wastes, or any substance which normally emits dense smoke or obnoxious odors other than paper to start the fire or properly seasoned wood.

307.4 Permit required. A permit shall be obtained from the *fire marshal* in accordance with Section 105.6 prior to kindling a *bonfire*. Application for such approval shall only be presented by and permits issued to the *owner* of the land upon which the fire is to be kindled.

307.4.1 Authorization. Where required by state or local law or regulations, *open burning* shall only be permitted with prior approval from the state or local air and water quality management authority, provided that all conditions specified in the authorization are followed.

307.5 Extinguishment authority. Where *open burning*, bonfires, recreational fires, or portable outdoor fireplaces creates or adds to a hazardous situation, is prohibited by Section 307.2, the location does not comply with the requirements of Section 307.6, or a bonfire has been kindled without obtaining a permit, the *fire marshal* is authorized to order the extinguishment of the fire.

307.6 Location. The location of *open burning*, bonfires, recreational fires, and portable outdoor fireplaces shall be in accordance with Sections 307.6.1 through 307.6.4

307.6.1 Open burning. The location for *open burning* shall be not less than 50 feet (15 240 mm) from any structure, and provisions shall be made to prevent the fire from spreading to within 50 feet (15 240 mm) of any structure.

Exceptions:

1. Fires in *approved* containers that are not less than 15 feet (4572 mm) from a structure.
2. The minimum required distance from a structure shall be 25 feet (7620 mm) where the pile size is 3 feet (914 mm) or less in diameter and 2 feet (610 mm) or less in height.

307.6.2 Bonfires. A bonfire shall not be conducted within 50 feet (15 240 mm) of a structure or combustible material unless the fire is contained in a barbecue pit. Conditions that could cause a fire to spread within 50 feet (15 240 mm) of a structure shall be eliminated prior to ignition.

307.6.3 Recreational fires. *Recreational fires* shall not be conducted within 25 feet (7620 mm) of a structure or combustible material. Conditions that could cause a fire to spread within 25 feet (7620 mm) of a structure shall be eliminated prior to ignition.

307.6.4 Portable outdoor fireplaces. Portable outdoor fireplaces shall be used in accordance with the manufacturer's instructions and shall not be operated within 15 feet (3048 mm) of a structure or combustible material.

307.7 Attendance. Open burning, bonfires, recreational fires and use of portable outdoor fireplaces shall be constantly attended until the fire is extinguished. A minimum of one portable fire extinguisher complying with Section 906 with a minimum 4-A rating or other approved on-site fire-extinguishing equipment, such as dirt, sand, water barrel, garden hose or water truck, shall be available for immediate utilization.

Section 319 is deleted in its entirety and replaced with the following:

319.1 General. Mobile food preparation vehicles that are equipped with appliances that produce smoke or grease-laden vapors shall comply with this section and **A.R.S. § 9-485, as amended.**

319.2 Permit required. Permits are required as set forth in Section 105.6.

319.3 Exhaust hood. Cooking equipment that produces grease-laden vapors shall be provided with a kitchen exhaust hood in accordance with section 607.

319.4 Fire protection. Fire Protection shall be provided in accordance with Sections 319.4.1 and 319.4.2.

319.4.1 Fire protection for cooking equipment. Cooking equipment shall be protected by automatic fire extinguishing systems in accordance with section 904.12.

319.4.2 Fire extinguisher. Portable fire extinguishers shall be provided in accordance with section 906.4.

319.5 Appliance connection to fuel supply piping. Gas cooking appliances shall be secured in place and connected to fuel supply piping with an appliance connector complying with ANSI Z21.69/CSA 6.16. The connector installation shall be configured in accordance with the manufacturer's installation instructions. Movement of appliances shall be limited by restraining devices installed in accordance with the connector an appliance manufacturer's instructions.

319.6 Cooking oil storage containers. Cooking oil storage containers within mobile food preparation vehicles shall have a maximum aggregate volume not more than 120 gallons and shall be stored in such a way as not to be toppled or damaged during transport.

319.7 Cooking oil storage tanks. Cooking oil storage tanks within mobile food preparation vehicles shall comply with Sections 319.7.1 through 319.7.5.2.

319.7.1 Metallic storage tanks. Metallic cooking oil storage tanks shall be listed in accordance with UL 80 or UL 142, and shall be installed in accordance with the tank manufacturer's instructions.

319.7.2 Nonmetallic storage tanks. Nonmetallic cooking oil storage tanks shall be installed in accordance with the tank manufacturer's instructions and shall comply with both of the following:

1. Tanks shall be listed for the use with cooking oil, including maximum temperature to which the tank will be exposed during use.
2. Tank capacity shall not exceed 200 gallons per tank.

319.7.3 Cooking oil storage system components. Metallic and nonmetallic cooking oil storage system components shall include, but are not limited to, piping, connections, fittings, valves, tubing, hose, pumps, vents, and other related components used for the transfer of cooking oil.

319.7.4 Design criteria. The design, fabrication and assembly of system components shall be suitable for the working pressures, temperatures, and structural stresses to be encountered by the components.

319.7.5 Tank venting. Normal and emergency venting shall be provided for cooking oil storage tanks.

319.7.5.1 Normal vents. Normal vents shall be located above the maximum normal liquid line and shall have a minimum effective area not smaller than the largest filling or withdrawal connection. Normal vents are not required to vent to the exterior.

319.7.5.2 Emergency vents. Emergency relief vents shall be located above the maximum normal liquid line and shall be in the form of a device or devices that will relieve excessive internal pressure caused by an exposure fire. For nonmetallic tanks, the emergency relief vent shall be allowed to be in the form of construction. Emergency vents are not required to discharge to the exterior.

319.8 LP-gas systems. Where LP-gas systems provide fuel for cooking appliances, such systems shall comply with Chapter 61 and Sections 319.8.1 through 319.8.5.

319.8.1 Maximum aggregate volume. The maximum aggregate capacity of LP-gas containers transported on the vehicle and used to fuel cooking appliances only shall not exceed 200 pounds propane capacity.

319.8.2 Protection of container. LP-gas containers installed on the vehicle shall be securely mounted and restrained to prevent movement.

319.8.3 LP-gas container construction. LP-gas containers shall be manufactured in compliance with the requirements of NFPA 58.

319.8.4 Protection of system piping. LP-gas system piping, including valves and fittings, shall be adequately protected to prevent tampering, impact damage, and damage from vibration.

319.8.5 LP-gas alarms. A listed LP- gas alarm shall be installed within the vehicle in the vicinity of LP-gas system components, in accordance with the manufacturer's instructions.

319.9 CNG systems. where CNG Systems provide fuel for cooking appliances, such systems shall comply with sections 319.9.1 through 319. 9.4.

319.9.1 CNG containers supplying only cooking fuel. CNG containers installed solely to provide fuel for cooking purposes shall be in accordance with sections 319.9.1.1 through 319.9.1.3.

319.9.1.1 Maximum aggregate volume. The maximum aggregate capacity of CNG containers transported on the vehicle shall not exceed 1,300 pounds water capacity.

319.9.1.2 Protection of container. CNG containers shall be securely mounted and re strain to prevent movement. Containers shall not be installed in locations subject to a direct vehicle impact.

319.9.1.3 CNG container construction. CNG containers shall be in NGV- 2 cylinder.

319.2 CNG containers supplying transportation and cooking fuel. Where CNG containers and systems are used to supply fuel for cooking purposes in addition to being used for transportation fuel, the installation shall be in accordance with NFPA 52.

319.3 Protection of system piping. CNG system piping, including valves and fittings, shall be adequately protected to prevent tampering, impact damage and damage from vibration.

319.4 Methane alarms. A listed methane gas alarm shall be installed within the vehicle in accordance with manufacturer's instructions.

319.10 Maintenance. Maintenance of systems on mobile food preparation vehicles shall be in accordance with Sections 319.10.1 through 319.10.3.

319.10.1 Exhaust systems. The exhaust system, including hood, grease-removal devices, fans, ducts, and other appurtenances, shall be inspected, and cleaned in accordance with section 607.3.

319.10.2 Fire protection systems and devices. Fire Protection systems and devices shall be maintained in accordance with section 901.6.

319.10.3 Fuel gas systems. LP- gas containers installed on the vehicle and fuel- gas piping systems shall be inspected annually by an improved inspection agency or a company that is registered with the US Department of Transportation to requalify LP- gas cylinders , to ensure that the system components are free from damage, suitable for the intended service and not subject to leaking. CNG containers shall be inspected every three years in a qualified service facility. CNG containers shall not be used past their expiration date as listed on the manufacturer's container label. Upon satisfactory inspection, the approved inspection agency shall affix a tag on the fuel gas system or within the vehicle indicating the name of the inspection agency and the date of satisfactory inspection.

Chapter 5 is deleted in its entirety and replaced with the following:

Title: Chapter 5: FIRE SERVICE FEATURES

SECTION 501 GENERAL

501.1 Scope. Fire service features for buildings, structures and premises shall comply with this chapter.

501.2 Permits. A permit shall be required as set forth in Sections 105.6 and 105.7.

501.3 Construction documents. Construction documents for permits set forth in Section 501.2 shall be submitted to the fire department for review and approval prior to construction.

501.4 Timing of installation. Where fire apparatus access roads or a water supply for fire protection are required to be installed, such protection shall be installed and made serviceable prior to and during the time of construction except when approved alternative methods of protection are provided. Temporary street signs shall be installed at each street intersection where construction of new roadways allows passage by vehicles in accordance with Section 505.2.

SECTION 502 DEFINITIONS

502.1 Definitions. The following terms are defined in Chapter 2:

AGENCY.

FIRE APPARATUS ACCESS ROAD.

FIRE COMMAND CENTER.

FIRE DEPARTMENT MASTER KEY.

FIRE LANE.

KEY BOX.

TRAFFIC CALMING DEVICES.

SECTION 503 FIRE APPARATUS ACCESS ROADS

503.1 Where required. Fire apparatus access roads shall be provided and maintained in accordance with Sections 503.1.1 through 503.1.3.

503.1.1 Buildings and facilities. *Approved fire apparatus* access roads shall be provided for every facility, building or portion of a building hereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall comply with the requirements of this section and shall extend to within 150 feet (45720 mm) of all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building or facility. Except for single- or two-family residences, the path of measurement shall be along a minimum of a 10 foot (3048 mm) wide unobstructed pathway around the external walls of the structure.

Exceptions:

1. The *fire marshal* is authorized to increase the dimension where any of the following conditions occur:

1.1. The building is equipped throughout with an *approved automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.3.

1.2. Fire apparatus access roads cannot be installed because of location on property, topography, waterways, irrigation channels, nonnegotiable grades or other similar conditions, and an *approved* alternative means of fire protection is provided.

1.3. There are not more than two single-family dwellings, Group R-3 or Group U occupancies.

1.4. Where approved by the *fire marshal*.

2. Where approved by the *fire marshal*, fire apparatus access roads shall be permitted to be exempted or modified for solar photovoltaic power generation facilities.

503.1.2 Additional access and obstructions to access. The *fire marshal* is authorized to require more than one fire apparatus access road based on the potential for impairment of a single road by vehicle congestion, condition of terrain, climatic conditions or other factors that could limit access.

503.1.2.1 Fences. When installed fences cause the distances from an approved fire department access road to exceed the maximum distance allowed in Section 503, a pedestrian gate, in accordance with Section 515.1.3.1, shall be provided in the fence to maintain the required fire department access. The gate shall be a minimum 4 feet (1219 mm) in width and be equipped with a key box in accordance with Section 510.

503.1.2.2 Other obstructions to access. When other obstructions are installed that cause the distances from an approved fire department access road to exceed the maximum distance allowed in Section 503, the fire marshal is authorized to require additional fire protection as specified in Section 901.4.4.

503.1.2.3 Pedestrian gates. Pedestrian gates installed as part of the required fire department access shall comply with Section 515.1.3.1.

503.1.3 High-piled storage. Fire department vehicle access to buildings used for *high-piled combustible storage* shall comply with the applicable provisions of Chapter 32.

503.2 Specifications. Fire apparatus access roads shall be installed and arranged in accordance with Sections 503.2.1 through 503.2.8.

503.2.1 Dimensions. Fire apparatus access roads shall have an unobstructed width of not less than 20 feet (6096 mm), exclusive of shoulders, except for *approved* security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 14 feet 6 inches (4267 mm).

Exceptions:

1. Where a fire hydrant is located on a fire apparatus access road, the minimum road width shall be 26 feet (7925 mm), exclusive of shoulders, for a distance 20 feet (6096 mm) before and after the center of the fire hydrant.
2. Where buildings exceeding 30 feet or three stories in height shall have a minimum road width shall be 26 feet (7925 mm), exclusive of shoulders.

503.2.2 Authority. The *fire marshal* shall have the authority to require or permit modifications to the required access widths where they are inadequate for fire or rescue operations or where necessary to meet the public safety objectives of the jurisdiction.

503.2.3 Surface. Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus weighing up to 70,000 pounds (34 050 kg.) and shall be surfaced to provide all-weather driving capabilities.

503.2.3.1 Construction. Fire department access during construction, at a minimum, shall be as follows:

1. Minimum of 6 inches (152 mm) of native soil compacted to 95 percent of standard proctor density (ASTM D 698),
2. Minimum of 4 inches (102 mm) of aggregate base compacted to 100 percent of standard proctor density (ASTM D 698),
3. Water drainage shall be directed away from the fire apparatus access road.

The surface of fire apparatus access roads may differ from the above requirements if it is shown that the surface provided is enough to support an imposed live load of 70,000 pounds (31 752 kg) with a maximum axle load of 28,000 pounds (12 701 kg). An engineer registered by the State of Arizona shall prepare and seal the soil compaction report. The report shall be available for review by the fire marshal.

503.2.4 Turning radius. Fire apparatus access roads shall have a minimum 45-foot centerline radius on curves.

503.2.5 Dead ends. Dead-end fire apparatus access roads in excess of 150 feet (45 720 mm) in length shall terminate in an approved turnaround in accordance with City of Avondale Supplement to Maricopa Association of Governments Standard Specifications and Details for Public Works Detail A1118 or as directed by the fire marshal.

503.2.6 Bridges and elevated surfaces. Where a bridge or an elevated surface is part of a fire apparatus access road, the bridge shall be constructed and maintained in accordance with AASHTO HB-17. Bridges and elevated surfaces shall be designed for a live load enough to carry the imposed loads of fire apparatus. Vehicle load limits shall be posted at both entrances to bridges where required by the fire marshal. Where elevated surfaces designed for emergency vehicle use are adjacent to surfaces that are not designed for such use, approved barriers, approved signs or both shall be installed and maintained where required by the fire marshal.

503.2.6.1 Sign Specification. Vehicle load limit sign shall be constructed with a thickness of .080

aluminum construction with a white 3M Scotchlite reflective background with a black face equivalent to MUTCD Series R12-1 sign.

Figure 503.2.6.1
Vehicle Load Limit Sign – Example



503.2.61.2 Mounting. Vehicle load limit signs shall be installed in an approved manner.

503.2.7 Longitudinal slope. The longitudinal slope of the fire apparatus access road shall not exceed 7 percent.

503.2.8 Angles of approach and departure. The angles of approach and departure for fire apparatus access roads shall be within the limits established by the fire marshal based on the fire department's apparatus.

503.2.9 Loading areas and passenger drop-off areas. On private property, where fire apparatus access roads are utilized for loading or unloading or are utilized for passenger drop off or pickup, an additional 8 feet (2438 mm) of width shall be added to the fire apparatus access road. This width is in addition to the minimum 20-foot (6096 mm) access road width exclusive of shoulders.

503.2.10 Vehicle passing points. When fire department access roads exceed 300 feet in length, vehicle passing points shall be installed at intervals not to exceed 300 feet. Vehicle passing points shall be a minimum of 30 feet in width exclusive of shoulders and 50 feet in length.

503.3 Alternative surface fire apparatus access roads. Alternative surface fire apparatus access roads shall be in accordance with this section and Sections 503.2 and 503.7 through 503.7.7. The surface of fire apparatus access roads may differ from the above requirements if it is shown that the surface provided is enough to support an imposed live load of 70,000 pounds (31 752 kg) with a maximum axle load of 28,000 pounds (12 701 kg). An engineer registered by the State of Arizona shall prepare and seal the soil compaction report. The report shall be available for review by the fire marshal.

503.3.1 Report. Alternative surface fire apparatus access roads shall be designed by an engineer registered by the State of Arizona. The engineer shall prepare a sealed design report for submittal to and approval by the fire department. Plans shall be sealed and submitted with the report

503.3.2 Stabilization. Stabilization of the fire apparatus access road surface shall be addressed in the alternative surface fire apparatus access road report and may be accomplished by curbing.

At a minimum, the surface of fire apparatus access roads shall be as follows:

1. Minimum 6 inches (152 mm) of native soil compacted to 95 percent of standard proctor density (ASTM D 698), and
2. Minimum 4 inches (102 mm) of aggregate base compacted to 100 percent of standard proctor density (ASTM D 698).

The surface of fire apparatus access roads may differ from the above requirements if it is shown that the surface provided is enough to support an imposed live load of 70,000 pounds (31 752 kg) with a maximum axle load of 28,000 pounds (12 701 kg). An engineer registered by the State of Arizona shall prepare and seal the soil compaction report. The report shall be available for review by the fire marshal.

503.3.3 Compaction. Minimum 95 percent compaction of subgrade soil is required.

503.3.4 Curbs. A rolled curb shall be installed at the entrances to fire apparatus access roads in accordance with Maricopa Association of Governments Standard Specifications and Details for Public Works Detail 220 or as directed by the fire marshal.

503.3.5 Marking. The curb shall be painted red or red 4-inch by 4-inch DOT approved retroreflective reflectors shall be installed to define the width of alternative surface fire apparatus access roads. The reflectors shall be imbedded into bordering curbing at intervals not exceeding 25 feet (4572 mm).

503.3.6 Special inspections. An Arizona-registered professional engineer shall conduct a special inspection and provide required documentation in accordance with Section 503.3.11 prior to final approvals being issued for the alternative surface fire apparatus access road.

503.3.7 Special inspection documentation. The special inspection documentation shall include, but not be limited to, the following:

1. Subgrade soil compaction report.
2. Base material quality, thickness and compaction.
3. Concrete depth and compressive strength, when applicable.
4. An evaluation of the installation in accordance with design drawings and manufacturer specifications.
5. Crown and drainage requirements.
6. Stabilization (if curbing is not used).

503.4 Private residential streets. Private residential streets shall be installed and arranged in accordance with this sections 503.4.1 through 503.4.11.

Exception: Alternate designs approved in accordance with Section 104.9.

503.4.1 Tract. The private residential street shall be placed into a tract. The tract shall be dedicated as an easement for emergency vehicles through the subdivision's recorded final plat.

503.4.2 Asphalt concrete pavement width. Asphalt concrete pavement width shall be a minimum of 38 feet (10.4 m) measured back of curb to back of curb.

503.4.3 Asphalt concrete pavement thickness. Asphalt concrete pavement thickness shall be a minimum of 3 inches (77 mm) and shall consist of one lift. All construction materials shall conform to Maricopa Association of Governments Standard Specifications and Details for Public Works Standard Specifications, Sections 321 and 710.

503.4.4 Asphalt concrete pavement slope. The asphalt concrete pavement shall have a 2 percent minimum cross slope as measured from the street centerline to the lip of gutter.

503.4.5 Base course. The base course shall be a minimum of 8 inches (204 mm) and be prepared in accordance with Maricopa Association of Governments Standard Specifications and Details for Public Works Standard Specifications, Sections 310 and 702.

503.4.6 Subgrade. The subgrade shall be prepared in accordance with Maricopa Association of Governments Standard Specifications and Details for Public Works Standard Specifications Section 301.

503.4.7 Gutter. Depending on stormwater design, a Type C roll curb or Type A vertical curb and gutter may

be utilized in accordance with Maricopa Association of Governments Standard Specifications and Details for Public Works Detail 220.

503.4.8 Fire hydrants. Where a fire hydrant is located on a private residential street, parking will be prohibited on the same side of the street as the fire hydrant for a distance 20 feet (6096 mm) before and after the center of the fire hydrant. Prohibited parking areas will be marked in accordance with Sections 503.5.2 and 503.5.2.6.

503.4.9 Fire lane marking. Where required by the fire marshal, approved signs or other approved notices or markings that include the words FIRE LANE-NO PARKING shall be provided for fire apparatus access roads to identify such roads or prohibit the obstruction thereof in accordance with Section 503.5.

503.4.10 Additional design requirements. Private residential street Sections shall be in accordance with Sections 503.2.4 through 503.2.8

503.4.11 Signs. Identification and traffic control signs will be provided in accordance with the City of Avondale Engineering Division requirements.

503.5 Fire lane marking. Where required by the fire marshal, approved signs or other approved notices or markings that include the words FIRE LANE-NO PARKING shall be provided for fire apparatus access roads to identify such roads or prohibit the obstruction thereof. The means by which fire lanes are designated shall always be maintained in a clean and legible condition and be replaced or repaired when necessary to provide adequate visibility.

503.5.1 Where required. Fire lane marking will be required in accordance with Sections 503.5.1.1 to 503.5.1.3.

503.5.1.1 Marking not required. A fire apparatus access road that is greater than 36 feet (10 973 mm) in width shall not be required to have fire lane marking.

503.5.1.2 Marking on both sides of a road. When a fire apparatus access road is less than 28 feet (8534 mm) in width, fire lane marking is required on both sides of the fire apparatus access road.

503.5.1.2 Marking on one side of a road. When a fire apparatus access road is 28 feet (8534 mm) or greater and less than or equal to 36 feet (10 973 mm) in width, fire lane marking is required to be installed on a minimum of one side of the fire apparatus access road.

503.5.1.3 Authority. The *fire marshal* shall have the authority to require fire lane marking where fire lane markings are inadequate for fire or rescue operations or where necessary to meet the public safety objectives of the jurisdiction.

503.5.2 Fire lane marking. Fire lane marking shall be in accordance with this section.

503.5.2.1 Fire lane signs. Fire apparatus access roads shall be identified by fire lane signs as follows:

1. FIRE LANE-NO PARKING signs shall comply with Figures 503.5.2.1(a) through 503.5.2.1(b) and the following:

- a. The sign plate shall be a minimum of 12 inches (305 mm) wide by 18 inches (457 mm) high with a thickness of .080 aluminum construction.
- b. The sign face shall have a white reflective background with a red legend. Use of standard 3M Scotchlite sign face MUTCD Series R7 or equivalent, with red screen-printed lettering.

2. Plaques shall comply with Figure 503.5.2.1(c) and the following:

1. The sign plate shall be a minimum of 12 inches (305 mm) wide by 6 inches (158 mm) high with a thickness of .080 aluminum construction.

2. The sign face shall have a white reflective background with a red legend. Use of standard 3M Scotchlite sign face MUTCD Series R7 or equivalent, with red screen-printed lettering.
3. Signs shall be attached to an approved stationary pole set in concrete a minimum depth of 18 inches (457 mm).
4. The bottom of each sign shall be 7 feet (2137 mm) above grade.
5. Signs shall face oncoming traffic.
6. Signs shall be set back from the curb line or sidewalk a minimum of 12 inches (305 mm) to a maximum of 18 inches (457 mm).
7. Signs shall always be plainly visible. Vegetation or other obstructions shall be located such that a minimum 3-foot (914 mm) clearance is maintained along the line of sight.

Figure 503.5.2.1(a)
Typical FIRE LANE – NO PARKING Sign



Figure 503.5.2.1(b)
Universal Symbol FIRE LANE – NO PARKING Sign



Figure 503.5.2.1 (c)
Sign Plaque



503.5.2.2 Curbs. Curbs used for marking of fire apparatus access roads shall be identified by red paint on both the top and face along the entire length of the fire apparatus access road including bullnose or island curbs. Where no curb exists or a rolled curb is installed, a 6-inch (152 mm) wide red stripe applied the full length of the fire apparatus access road shall be installed.

503.5.2.3 Fire lane marking – Option 1. Fire lane marking Option 1 shall meet all the following:

1. A sign meeting the requirements of Section 503.5.2.1 shall be installed a maximum of 15 feet (4572 mm) from the beginning and end of the fire

apparatus access road.

2. FIRE LANE-NO PARKING signs will be installed between the beginning and ending sign at a spacing not to exceed 75 feet (22860 mm).

503.5.2.4 Fire lane marking – Option 2. Fire lane marking Option 2 shall meet all the following:

1. A sign meeting the requirements of Section 503.5.2.1 with a “BEGIN” plaque shall be installed a maximum of 15 feet (4572 mm) from the beginning of the fire apparatus access road.
2. The curb or lane edge adjacent to the fire apparatus access road shall be painted in accordance with Section 503.5.2.2.
3. A sign meeting the requirements of Section 503.5.2.1 with a “END” plaque shall be installed a maximum of 15 feet (4572 mm) from the end of the fire apparatus access road.

503.5.2.5 Fire lane marking – Option 3. Fire lane marking Option 3 shall meet all the following:

1. A sign meeting the requirements of Section 503.5.2.1 shall be installed a maximum of 15 feet (4572 mm) from the beginning and end of the fire apparatus access road.
2. Additional FIRE LANE-NO PARKING signs will be required between the beginning and ending sign at a spacing not to exceed 75 feet (22860 mm).
3. The curb or lane edge adjacent to the fire apparatus access road shall be painted in accordance with Section 503.5.2.2.

503.5.2.6 Fire lane marking – Fire Hydrant. Fire lane marking – Fire Hydrant shall meet all the following:

1. A sign meeting the requirements of Section 503.5.2.1 with a “BEGIN” plaque shall be installed at the beginning of the prohibited parking area, and
2. A sign meeting the requirements of Section 503.5.2.1 with a “END” plaque shall be installed at the end of the prohibited parking area.

503.5.2.7 Enhanced marking. The fire marshal is authorized to require new and existing fire lanes to be enhanced with additional markings to improve the identification of fire apparatus access roads. Enhanced markings shall be in accordance with Sections 503.5.2.7.1 through 503.5.2.7.3 or other fire marshal approved method.

503.5.2.7.1 Stenciling. When required, the stenciling shall state “FIRE LANE – NO PARKING.” Lettering shall be white and shall be a minimum of 3 inches (76 mm) high with ½ inch (13 mm) brush stroke. Stenciling shall be applied at approved locations to the face of curbs and top of stripes meeting the requirements of Section 503.5.2.2.

503.5.2.7.2 Signs. When required, approved signs in accordance with Section 503.5.2.1 will be installed at required locations.

503.5.2.7.3 Striping. When required, diagonal striping across the width of the fire

lane will be installed in an approved configuration.

503.6 Obstruction of fire apparatus access roads. Fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles. The minimum widths and clearances established in Sections 503.2.1 and 503.2.2 shall always be maintained.

503.6.1. Traffic calming devices. Traffic calming devices shall be prohibited unless approved by the fire marshal.

503.7 Required gates or barricades. The fire marshal is authorized to require the installation and maintenance of gates or other approved barricades across fire apparatus access roads, trails or other accessways, not including public streets, alleys or highways in accordance with this section and Section 515. Electric gate operators, where provided, shall be listed in accordance with UL 325. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F 2200

503.7.1 Secured gates and barricades. Where required, gates and barricades shall be secured in an approved manner. Roads, trails and other accessways that have been closed and obstructed in the manner prescribed by Section 503.7 shall not be trespassed on or used unless authorized by the owner and the fire marshal.

Exception: The restriction on use shall not apply to public officers acting within the scope of duty.

503.7.2 Security gates. The installation of security gates across a fire apparatus access road shall be approved by the fire marshal. Where security gates are installed, they shall have an approved means of emergency operation. The security gates and the emergency operation shall always be maintained operational. Electric gate operators, where provided, shall be listed in accordance with UL 325. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F2200.

503.7.3. Chains. Chains alone across a fire apparatus access road is prohibited.

SECTION 504 COMMERCIAL AND INDUSTRIAL DEVELOPMENTS

504.1 Buildings exceeding three stories or 30 feet in height. Buildings or facilities exceeding 30 feet (9144 mm) or three stories in height shall have at least two means of fire apparatus access for each structure.

504.1.1 Underground structures. Underground structures within 10 feet of a fire apparatus access roads must meet the additional requirement of Section 505.5.

504.2 Buildings exceeding 62,000 square feet in area. Buildings or facilities having a gross building area of more than 62,000 square feet (5760 m2) shall be provided with two separate and approved fire apparatus access roads.

Exception: Projects having a gross building area of up to 124,000 square feet (11,520 m2) that have a single approved fire apparatus access road when all buildings are equipped throughout with approved automatic sprinkler systems.

504.3 Remoteness. Where two fire apparatus access roads are required, they shall be placed a distance apart equal to not less than one half of the length of the maximum overall diagonal dimension of the lot or area to be served, measured in a straight line between accesses.

SECTION 505 AERIAL FIRE APPARATUS ACCESS ROADS

505.1 Where required. Where the vertical distance between the fire apparatus access road and the highest roof surface exceeds 30 feet (9144 mm), an approved aerial fire apparatus access road shall be provided. For purposes of this section, the highest roof surface shall be determined by measurement to the eave of a pitched roof, the intersection of the roof to the exterior wall, or the top of parapet walls, whichever is greater.

505.2 Width. Aerial fire apparatus access roads shall have a minimum unobstructed width of 26 feet (7925 mm), exclusive of shoulders, in the immediate vicinity of the building or portion thereof.

505.3 Proximity to building. At least one of the required access routes meeting this condition shall be located within a minimum of 15 feet (4572 mm) and a maximum of 30 feet (9144 mm) from the building and shall be positioned parallel to one entire side of the building. The side of the building on which the aerial fire apparatus access road is positioned shall be approved by the fire marshal.

505.4 Obstructions. Overhead utility and power lines shall not be located over the aerial fire apparatus access road or between the aerial fire apparatus road and the building. Other obstructions shall be permitted to be placed with the approval of the fire marshal.

505.5 Point Load. Aerial fire apparatus access roads shall be designed with a surface capable of an outrigger point load of 44,928 pounds over an area of 24 inches by 24 inches square (4.0 square feet).

SECTION 506 MULTIPLE-FAMILY RESIDENTIAL DEVELOPMENTS

506.1 Projects having more than 100 dwelling units. Multiple-family residential projects having more than 100 dwelling units shall be equipped throughout with two separate and approved fire apparatus access roads.

Exception: Projects having up to 200 dwelling units may have a single approved fire apparatus access road when all buildings, including nonresidential occupancies, are equipped throughout with approved automatic sprinkler systems installed in accordance with Section 903.3.1.1.

506.2 Projects having more than 200 dwelling units. Multiple-family residential projects having more than 200 dwelling units shall be provided with two separate and approved fire apparatus access roads regardless of whether they are equipped with an approved automatic sprinkler system.

506.3 Remoteness. Where two fire apparatus access roads are required, they shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the property or area to be served, measured in a straight line between accesses.

SECTION 507 ONE- OR TWO-FAMILY DWELLING RESIDENTIAL DEVELOPMENTS

507.1 One- or two-family dwelling residential developments. Developments of one- or two-family dwellings where the number of dwelling units exceeds 30 shall be provided with two separate and approved fire apparatus access roads.

Exceptions:

1. Where there are more than 30 dwelling units on a single public or private fire apparatus access road and all dwelling units are equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.3 of the International Fire Code, access from two directions shall not be required.
2. The number of dwelling units on a single fire apparatus access road shall not be increased unless fire apparatus access roads will connect with future development, as determined by the fire marshal.

507.2 Remoteness. Where two fire apparatus access roads are required, they shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the property or area to be served, measured in a straight line between accesses.

SECTION 508 ACCESS TO BUILDING OPENINGS AND ROOFS

508.1 Required access. Exterior doors and openings required by this code or the International Building Code shall be maintained readily accessible for emergency access by the fire department. An approved access walkway leading from fire apparatus access roads to exterior openings shall be provided.

508.2 Maintenance of exterior doors and openings. Exterior doors and their function shall not be eliminated without prior approval. Exterior doors that have been rendered nonfunctional and that retain a functional door exterior appearance shall have a sign affixed to the exterior side of the door with the words THIS DOOR BLOCKED. The sign

shall consist of letters having a principal stroke of not less than 3/4 inch (19.1 mm) wide and not less than 6 inches (152 mm) high on a contrasting background. Required fire department access doors shall not be obstructed or eliminated. Exit and exit access doors shall comply with Chapter 10. Access doors for high-piled combustible storage shall comply with Section 3206.6.1.

508.3 Stairway access to roof. New buildings four or more stories above grade plane, except those with a roof slope greater than four units vertical in 12 units horizontal (33.3-percent slope), shall be provided with a stairway to the roof. Stairway access to the roof shall be in accordance with Section 1011.12. Such stairway shall be marked at street and floor levels, in an approved location, with an approved sign in accordance with Section 508.3.1. Where roofs are used for roof gardens or for other purposes, stairways shall be provided as required for such occupancy classification.

508.3.1 Signs. Stairway access sign design shall include the following:

- a. The sign face shall be 12-inch by 14-inch and fabricated from .080 aluminum sheet with 1.5-inch radius corners,
- b. Font style used shall be Handel Gothic BT Capital fonts,
- c. The design face shall have a white 3M Diamond Grade Reflective Sheeting (DG³ 4090 Series or equivalent) applied as a background to the aluminum plates,
- d. Lettering/numbering shall be high performance, non-reflective, cuttable vinyl (3M 7725 Series or equivalent) inverse cut to allow white reflective background to show through,
- e. All sign imaging shall follow the reflective sheeting manufacturer's match component system,
- f. Signs shall contain the following information:
 1. Stairway name, 1.25-inch by .25-inch lettering,
 2. "STANDPIPE" or "NO STANDPIPE", 1-inch by 3/16-inch lettering,
 3. Floor letter or number, 5-inch by 7/8-inch lettering,
 4. Floor range, 1.25-inch by 3/16-inch lettering, and
 5. Braille ADA information, if required by the others.

SECTION 509 PREMISES IDENTIFICATION

509.1 Address identification. New and existing buildings shall have approved address numbers, building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. Where required by the fire marshal, address numbers shall be provided in additional approved locations to facilitate emergency response. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall be a minimum of 4 inches (101.6 mm) high with a minimum stroke width of 5/8-inch (15.87 mm) on a contrasting background. Where access is by means of a private road and the building cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the structure. Address numbers shall be maintained.

509.2 Premise identification for residential occupancies. Premise identification for residential occupancies shall be in accordance with Section 505.

509.2.1 Single-family homes. The address numbers for single-family homes that are Group R-3 occupancies shall be a minimum of 4 inches (101.6 mm) high, with a minimum 5/8-inch (15.87 mm) brush stroke on a contrasting background.

509.2.2 Address marking of multifamily residential occupancies other than R-3 occupancies. The address, individual building, spread, and dwelling numbers in other than Group R-3 occupancies shall be in accordance with Sections 509.2.2.1 through 509.2.2.6

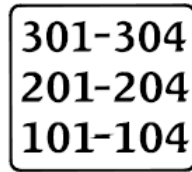
509.2.2.1 Building or site address. The street address numbers shall be a minimum of 18 inches (457 mm) high with a minimum 3-inch (76 mm) wide brush stroke on contrasting color. For buildings less than 100 feet (30 480 mm) long, a minimum of one address shall be provided. For buildings greater than 100 feet (30480 mm) in length, the address is required in a minimum of two places. Each building in a complex shall display its own identification.

509.2.2.2 Building identification numbers. Each building shall display its specific alphabetical or numerical designation which must be clearly visible from the fire apparatus access road. The building identification numbers shall be a minimum of 18 inches (457 mm) high with a minimum 3-inch (76 mm) brush stroke on contrasting color. For buildings less than 100 feet (30 480 mm) long, a minimum of one building identification number per building shall be provided.

509.2.2.3 Spread numbers. Spread numbers shall be provided adjacent to the building identification numbers to indicate the apartment or unit numbers by floors in the building. Spread numbers shall be a minimum of 7 inches (178 mm) high with a 1-inch (25 mm) brush stroke on a contrasting background.

509.2.2.4 Unit identification at entrances. When more than one dwelling or unit is accessed from an entrance, a spread plate is required. The spread numbers are required to be internally or externally illuminated.

Figure 509.2.2.4
Unit Entrance Spread Sign – Example



509.2.2.5 Apartment or unit numbers. Individual apartment or unit numbers shall be a minimum of 4 inches (102 mm) high with a minimum 5/8-inch (15.87 mm) brush stroke on a contrasting background.

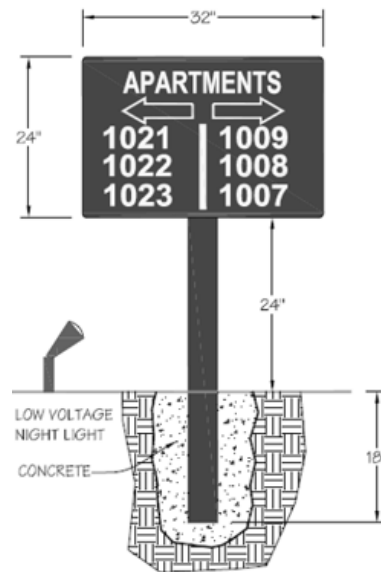
509.2.2.6 Additional unit identification signs. Where a building is not visible from the fire apparatus access road, an approved directional sign indicating the location of the unit is required in accordance with the following:

509.2.2.6.1 Signs. Directional sign design shall include the following:

- a. The sign face shall be 32-inch by 24-inch and fabricated from .080 aluminum sheet with 1.5-inch radius corners,
- b. Font style used shall be Arial Black font. Fonts used for addressing must be legible and easy to read. The use of different fonts must be approved by the fire marshal,
- c. The design face shall have a white 3M Diamond Grade Reflective Sheeting (DG³ 4090 Series or equivalent) applied as a background to the aluminum plates,
- d. Lettering/numbering shall be high performance, non-reflective, cuttable vinyl (3M 1170 Series or equivalent) inverse cut to allow white reflective background to show through, and

- e. All sign imaging shall follow the reflective sheeting manufacturer's match component system.

Figure 509.2.2.6
Apartment Directional Sign



509.3 Premise identification for commercial buildings. Commercial buildings less than 200 feet (60 960 mm) long and 100 feet (30 480 mm) from the road shall be identified with building address numbers that are a minimum of 18 inches (457 mm) high with a minimum 3-inch (76 mm) brush stroke on contrasting background. The address shall be visible from all access directions.

When buildings are more than 200 feet (60 960 mm) long or set back from the road more than 100 feet (30 480 mm) they shall be identified with building address numbers that are a minimum of 24 inches (610 mm) high with a 4-inch (102 mm) brush stroke of a contrasting color.

When buildings are greater than 500 feet (152 400 mm) in length, the number and address shall be provided in a minimum of two locations. When buildings have multiple access points, numbers and addresses shall be provided at each access point.

509.3.1 Multitenant commercial buildings. Individual tenant spaces in multitenant commercial buildings shall have their address or suite number posted at the front entrance and rear access doors. This number shall be a minimum of 6 inches (152 mm) high with a 1-inch (25 mm) brush stroke on a contrasting background.

509.3.2 Multiple buildings at a single address. Each building shall display its specific alphabetical or numerical designation that shall be clearly visible from the fire apparatus access road (see Section 509.3 for minimum letter height and brush stroke requirements).

509.4 Address directories.

509.4.1 When required. An approved address directory shall be provided at properties containing any one of the following:

1. More than one principal building.
2. Buildings with unit identification numbers randomly numbered or sequenced.
3. When, in the opinion of the Fire Marshal, emergency response may be delayed due to the physical layout of the complex.

509.4.2 Specifications. Address directories shall be constructed and installed in accordance with this section.

509.4.3 Dimensions. The number of buildings in the complex shall determine the minimum dimensions of the address directory. Minimum address directory dimensions shall be as follows:

1. Complexes containing 12 or fewer buildings require a minimum 3 by 3 feet (914 by 914 mm) [9 square feet (0.836 m²)] site directory.
2. Complexes containing 13 to 30 buildings require a minimum 4 by 4 feet (1219 by 1219 mm) [16 square feet (1.486 m²)] site directory.
3. Complexes containing 31 or more buildings require a minimum 5 by 5 feet (1524 by 1524 mm) [25 square feet (2.323 m²)] site directory. Stanchions or supports shall not be included in the 5 by 5 feet required size of the address directory.

509.4.4 Framing. Framing materials shall not encroach upon the address directory face by more than 1 1/2 inches (39 mm).

509.4.5 Protection. The address directory shall be protected against vandalism and disfigurement by a clear polycarbonate cover, which shall have a minimum thickness of 1/8 inch (3.17 mm) and be sealed to protect the address directory from weather.

509.4.6 Illumination. Address directories shall be internally illuminated utilizing white light.

509.4.7 Installation requirements. Support posts or stanchions shall be set in concrete. Directories with dimensions of 3 by 3 feet (914 by 914 mm) [9 square feet (0.836 m²)] shall be mounted with the bottom of the address directory not less than 36 inches (914 mm) above grade.

Address directories with dimensions of 4 by 4 feet (1219 by 1219 mm) [16 square feet (1.486 m²)] and 5 by 5 feet (1524 by 1524 mm) [25 square feet (2.32 m²)] shall be mounted with the bottom of the address directory not less than 12 inches (305 mm) above grade.

509.4.8 Depictions. All depictions must be clear, easily understood, and legible at 8 feet (2438 mm). The address directory shall depict structures, building numbers, units, apartment or space numbers, tennis courts, swimming pools, elevators, driveways, streets, laundry rooms, fire hydrants, fire apparatus access roads and other features as determined by the fire department. The depictions shall comply with the following:

1. Address directories shall be a dark print on a contrasting light background. Buildings shown on the address directory shall not be the same color as other features indicated on the address directory.
2. The name and address of the complex are required and shall not exceed 10 percent of the total size of the site directory.
3. Swimming pools, canals, and waterway areas shall be translucent blue.
4. Tennis courts shall be translucent green.
5. Fire hydrants shall be a 1/4-inch (6.35 mm) diameter black circle filled in with a translucent yellow center. The abbreviation "HYD" must be affixed by the location of the fire hydrant on the address directory.
6. The address directory shall be properly oriented to the viewer with a red dot that is 1 inch (25 mm) in diameter, that is with the words "YOU ARE HERE" affixed at the appropriate location on the address directory.
7. A north arrow shall be included in the upper-right quadrant of the address Directory. The arrow shall be a minimum of 3 inches (76 mm) in length with a minimum 1-inch (25 mm) brush stroke.

8. Interior fire apparatus access roads, where provided, shall be marked on the address directory with red crosshatching.

509.4.9 Setbacks. The address directory shall be installed on the occupancy's property, at locations approved by the fire department. Placement of the address directory shall be as follows:

1. The address directory shall be set back from the street or curbing at least 25 feet (7620 mm) to allow emergency vehicles to clear the public right-of-way.
2. Shall not exceed 4 feet (1219 mm) from the edge of the fire apparatus access road facing the direction of oncoming traffic.
3. Shall not conflict with traffic visibility zones as provided for by other ordinances.
4. Shall be immediately visible and free from obstructions including architectural design and landscaping.

509.4.10 Prohibitions. Information such as advertising or additional artwork shall not be allowed on the address directory.

509.4.11 Maintenance. All premise identification shall be maintained clearly visible and free from obstructions, including landscaping.

509.5 Street or road signs. Streets and roads shall be identified with approved signs. Temporary signs shall be installed at each street intersection when construction of new roadways allows passage by vehicles. Signs shall be of an approved size, weather resistant and be maintained until replaced by permanent signs.

SECTION 510 KEY BOXES

510.1 Where required. Where access to or within a structure or an area is restricted because of secured openings or where immediate access is necessary for lifesaving or fire-fighting purposes, the fire marshal is authorized to require a key box to be installed in an approved location. The key box shall be of an approved type listed in accordance with UL 1037, and shall contain keys to gain necessary access as required by the fire marshal.

When a building, other than a single-family residence or Group R-3 occupancies, is monitored off-site for security, fire, or other service that notifies the fire department, a key box shall be installed in accordance with this Section.

Card access, magnetic locks and electronic type locks on ingress/egress control doors that are required for fire fighter access within suites and buildings are required to unlock upon fire alarm, other than manual pulls. Electric strikes shall release unless keys are provided in accordance with Section 510.1.5 and free exit is provided in accordance with Section 1008.1.3.4.

510.1.1 Location. Key boxes shall be located as follows:

1. Adjacent to the main entry of the *building*.
2. Adjacent to the exterior entrance door to each exterior fire riser room or area.
3. Adjacent to the exterior entrance door to each fire pump room.
4. Adjacent to the exterior entrance door to the fire command center, if applicable.
5. Adjacent to the exterior entrance door to each electrical equipment room provided with a service disconnect.
6. Adjacent to exterior building access doors serving storage arrays so travel distance to a key box does not

exceed 100 feet.

7. Adjacent to commercial pool enclosure entrance(s).

8. Adjacent to each exterior stairway access door.

9. As required on access gates.

10. Additional key boxes may be required by the *fire marshal* based on the size, layout, and use of the building.

510.1.2 Height. The key box shall be mounted about 5 feet (1524 mm) above grade.

510.1.3 Visibility. The key box shall be illuminated to be immediately visible to fire personnel from the emergency apparatus. Posts, fences, vehicles, growth, trash, storage, and other materials shall not be placed or kept near key boxes in a manner that would prevent the key boxes from being immediately discernible.

510.1.4 Marking of keys for fire department access. Each key shall be provided with a water-resistant tag and be color coded to identify its function as follows:

1. Green for access gates.

2. Yellow for elevators.

3. Red for the fire command center.

4. Blue for keys related to water access (e.g., gates to swimming pools).

5. White for master keys.

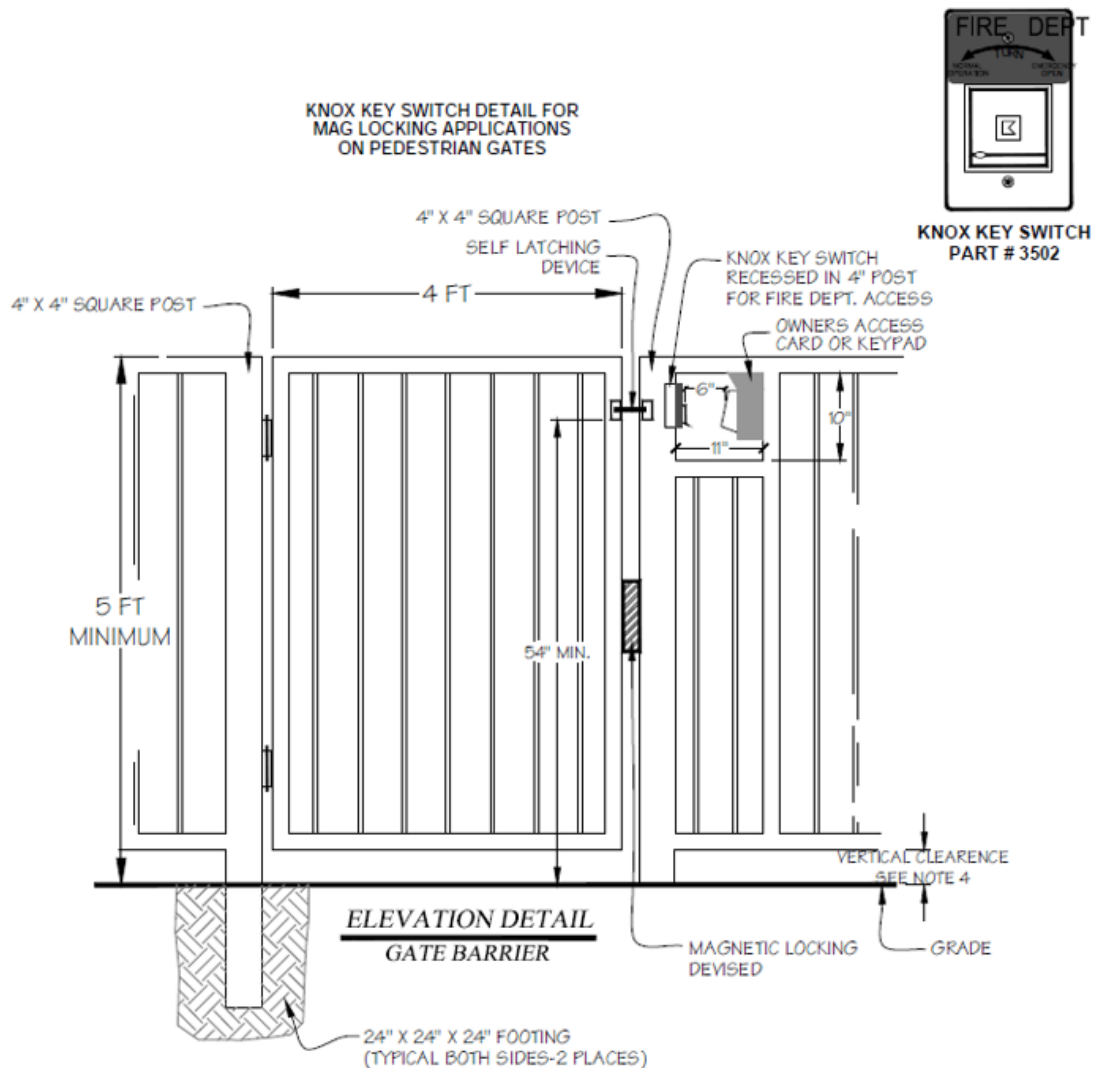
Keys that are required to access secured areas for a function not listed above shall be provided with water resistant tags. The tags shall be marked in a contrasting color with the key's function and room number. The terminology used to mark the tags shall provide immediate understanding as to the key's function.

510.1.5 Number of sets of keys. All keys shall be provided in full sets; a minimum of one set for access shall be provided. Key boxes at stairways shall provide two sets per box. Buildings with fire service elevators shall provide three sets per fire service designated elevator.

510.2 Locks. An approved lock shall be installed on gates or similar barriers when required by the fire marshal.

510.3 Swimming pool gates. All swimming pool pedestrian access gates in multifamily and commercial occupancies that are locked shall be provided with an approved key box in accordance with Section 515.1.3.1. Where a card reader system is installed, a key box with toggle switch or gate switch must be installed in accordance with Figure 510.3.

Figure 510.3
Swimming Pool Gate Detail



510.4 Key boxes for non-standardized fire service elevator keys. Key boxes provided for non-standardized fire service elevator keys shall comply with Section 510.1 and all the following:

1. The key box shall be compatible with an existing rapid entry key box system in use in the jurisdiction and approved by the fire marshal.
2. The front cover shall be permanently labeled with the words "Fire Department Use Only—Elevator Keys."
3. The key box shall be mounted at each elevator bank at the lobby nearest to the lowest level of fire department access.
4. The key box shall be mounted 5 feet 6 inches (1676 mm) above the finished floor to the right side of the elevator bank.
5. Contents of the key box are limited to fire service elevator keys. Additional elevator access tools, keys and information pertinent to emergency planning or elevator access shall be permitted where authorized by the fire marshal.
6. In buildings with two or more elevator banks, a single key box shall be permitted to be used where such elevator

banks are separated by not more than 30 feet (9144 mm). Additional key boxes shall be provided for each individual elevator or elevator bank separated by more than 30 feet (9144 mm).

Exception: A single key box shall be permitted to be located adjacent to a fire command center or the nonstandard fire service elevator key shall be permitted to be secured in a key box used for other purposes and located in accordance with Section 510.1.

510.5 Key box maintenance. The operator of the building shall immediately notify the fire marshal and provide the new key where a lock is changed or rekeyed. The key to such lock shall be secured in the key box.

510.6 Retroactive upgrade required. Existing key boxes, padlocks, and switches which are inconsistent with the approved Knox Company keyway shall be upgraded as required by the *fire marshal*.

SECTION 511 FIRE PROTECTION WATER SUPPLIES

511.1 Required water supply. An approved water supply capable of supplying the required fire flow for fire protection shall be provided to premises upon which facilities, buildings or portions of buildings are hereafter constructed or moved into or within the jurisdiction.

511.2 Type of water supply. A water supply shall consist of reservoirs, pressure tanks, elevated tanks, water mains or other fixed systems capable of providing the required fire flow.

511.2.1 Private fire service mains. Private fire service mains and appurtenances shall be installed in accordance with the Maricopa Association of Governments Standard Specifications and Details for Public Works; the City of Avondale Supplement to Maricopa Association of Governments Standard Specifications and Details for Public Works; NFPA 24, and this section.

511.2.1.1 Hydraulic calculations. Calculations shall be submitted to verify the private fire service main(s) will provide the minimum required fire flow, as determined by Section 511.3, to the hydraulically most demanding on-site hydrants with the water supply that is available to the system.

511.2.1.2 System flow requirement. The hydraulically most-demanding hydrant will be assigned a minimum flow rate of 1,500-gpm (5678 L). An additional 1,000 gpm (4546 L), or remainder of the required fire flow, as determined by Section 507.3, shall be added at each successive hydrant until the minimum required fire flow has been reached.

511.2.1.3 System pressure requirement. A minimum of 20 psi (138 kPa) residual pressure shall be maintained in the system. All pressure losses in the system including friction loss through pipe and fittings and changes in elevation shall be accounted for from the hydraulically most demanding hydrant(s) back to the location of the water flow test that was used to determine the water supply available to supply the new private hydrants and mains.

511.2.1.4 Method for determining friction loss. Friction loss through pipe and fittings shall be determined using the Hazen-Williams formula or other approved hydraulic formula. The Hazen-Williams formula is as follows:

$$P = 4.52 \times Q^{1.85} / C^{1.85} \times D^{4.87}$$

Where:

P = friction loss in psig per foot of pipe.

Q = flow in gpm.

C = Hazen-Williams co-efficient of roughness, friction loss coefficient, pipe roughness coefficient.

D = actual internal diameter of the pipe in inches.

511.2.1.5 Backflow prevention assembly. The pressure loss through any backflow prevention assembly installed on the system shall be included in the hydraulic calculations. The model and size of the backflow prevention assembly shall be noted on the plans.

511.2.1.6 Minimum Diameter. Fire mains and appurtenances shall be sized to accommodate the calculated fire flow but shall not be less than 6 inches (152 mm) in diameter. Dead-end fire mains shall not be less than 8 inches (203 mm) in diameter unless calculations determine otherwise.

511.2.1.7 Private fire service main looping. Private fire service mains are required to be looped with a minimum of two separate connections to the public water system under the following conditions:

1. Water main exceeds 100 feet for 6" lines.
2. Water main exceeds 400 feet for 8" lines.
3. Water mains serving more than one fire hydrant.
4. Water mains serving a building over 52,000 sq. ft.
5. Water mains serving a building over two stories in height.
6. Water mains serving more than one commercial building.
7. Water mains serving over 30 single-family residential units.
8. Water mains serving over 200 multi-family residential units.
9. As otherwise required by the fire marshal.

511.2.1.8 Private fire service main connections. Where two water connections are required, they shall be placed a distance apart equal to not less than one half of the length of the maximum overall diagonal dimension of the property or area to be served, measured in a straight line between the water connections. Where two water connections are required, they shall be made to separate water lines where possible. Where the connections are made to the same water line a valve shall be in an approved location in between the connections to allow for one connection to provide fire protection while the second connection is being repaired.

511.2.1.9 Sectional valves. Sectional valves shall be provided to ensure minimal impairments to fire protection should the private fire service main require repair or alteration.

511.2.1.9.1 Locations. Each tee, cross, or other identified location will be provided with a valve.

511.2.1.9.2 Post Indicator Valve. Where underground sprinkler riser supply piping is run more than 5 feet (1524 mm) under the building, a Post Indicator Valve (PIV) shall be provided in an approved location adjacent to the foundation.

511.2.1.10 Fire Pumps. Fire pumps shall be supplied with a dedicated private fire service main.

511.2.2 Water tanks. Water tanks for private fire protection shall be installed in accordance with NFPA 22.

511.2.3 Inspection, testing and maintenance. Private fire service mains, appurtenances, fire hydrants, and water tanks shall be periodically inspected, tested and maintained in accordance with NFPA 25; records submitted in accordance with Section 901.6.3; and shall always be maintained in an operative condition and shall be repaired where defective. Additions, repairs, alterations and servicing shall comply with approved standards.

511.3 Fire flow. Fire flow requirements for buildings or portions of buildings and facilities shall be in accordance with this Section.

511.3.1 Definitions. For the purpose of this Chapter, certain terms are defined as follows:

FIRE-FLOW. The flow rate of a water supply, measured at 20 pounds per square inch (psi) (138 kPa) residual pressure, that is available for firefighting.

FIRE-FLOW CALCULATION AREA. The floor area, in square feet (m²), used to determine the required fire flow.

511.3.2 Modifications. The fire marshal is authorized to modify fire-flow requirements.

511.3.2.1 Decreases. The fire marshal is authorized to reduce the fire-flow requirements for isolated buildings or a group of buildings in rural areas or small communities where the development of full fire-flow requirements is impractical.

511.3.2.2 Increases. The fire marshal is authorized to increase the fire-flow requirements where conditions indicate an unusual susceptibility to group fires or conflagrations. An increase shall not be more than twice that required for the building under consideration.

511.3.2.3 Areas without water supply systems. For information regarding water supplies for fire-fighting purposes in rural and suburban areas in which adequate and reliable water supply systems do not exist, the fire marshal is authorized to utilize NFPA 1142 or the International Wildland-Urban Interface Code.

511.3.3 Fire-flow calculation area.

511.3.3.1 General. The fire-flow calculation area shall be the total floor area of all floor levels within the exterior walls, and under the horizontal projections of the roof of a building, except as modified in Section 511.3.3.3.

511.3.3.2 Area separation. Portions of buildings which are separated by fire walls without openings, constructed in accordance with the International Building Code, can be considered as separate fire-flow calculation areas.

511.3.3.3 Type IA and Type IB construction. The fire-flow calculation area of buildings constructed of Type IA and Type IB construction shall be the area of the three largest successive floors.

Exception: Fire-flow calculation area for open parking garages shall be determined by the area of the largest floor.

511.3.4 Fire-flow requirements for buildings

511.3.4.1 One- and two-family dwellings. The minimum fire-flow and flow duration requirements for one- and two-family dwellings will be in accordance with Sections 511.3.4.1.1 through 511.3.4.1.2.

511.3.4.1.1 One- and two-family dwellings not exceeding two stories in height and 3,600 square feet. The minimum fire-flow requirements for one- and two-family dwellings not exceeding two stories in height and 3,600 square feet shall be:

1. Where the distance between buildings exceed 10 feet, the required fire-flow is 1,000 gallons per minute for one hour, or
2. Where the distance between buildings is 0-10 feet, the required fire-flow is 1,500 gallons per minute for one hour.

Exceptions:

1. Where structures separated with a masonry wall with a height of six or more feet, the required fire-flow is 1,000 gallons per minute for one hour.
2. A reduction in required fire-flow of 50 percent, as approved, is allowed when the building is equipped with an approved automatic sprinkler system. The resulting fire-flow cannot be less than 1,000 gallon per minute for one hour.

511.3.4.1.2 One- and two-family dwellings exceeding two stories in height or 3,600 square

feet. Fire-flow and flow duration for dwellings exceeding two stories in height or having a fire-flow calculation area exceeding 3,600 square feet (3.44.5 m²) shall be 2,000 gallons per minute for two hours.

Exception: A reduction in required fire-flow of 50 percent, as approved, is allowed when the building is equipped with an approved automatic sprinkler system. The resulting fire-flow cannot be less than 1,000 gallon per minute for one hour.

511.3.4.2 Buildings other than one- and two-family dwellings. The minimum fire-flow and flow duration for buildings other than one- and two-family *dwellings* shall be as specified in Table 511.3.4.2.

Exception: A reduction in required fire-flow of up to 75 percent, as *approved*, is allowed when the building is protected throughout by an automatic fire sprinkler system designed for the hazard and installed in accordance with NFPA13, Standard for the Installation of Sprinkler Systems. The resulting fire-flow shall not be less than 1,500 gallons per minute (5678 L/min) for the prescribed duration as specified in Table 511.3.4.2.

Table 511.3.4.2

Minimum Fire-Flow and Flow Duration for Buildings Other Than One- and Two-Family Dwellings

FIRE-FLOW CALCULATION AREA (square feet)					FIRE-FLOW (gallons per minute) ^b	FLOW DURATION (hours)
Type IA and IB ^a	Type IIA and IIIA ^a	Type IV and V-A ^a	Type IIB and IIIB ^a	Type V-B ^a		
0-22,700	0-12,700	0-8,200	0-5,900	0-3,600	1,500	2
22,701-30,200	12,701-17,000	8,201-10,900	5,901-7,900	3,601-4,800	1,750	
30,201-38,700	17,001-21,800	10,901-12,900	7,901-9,800	4,801-6,200	2,000	
38,701-48,300	21,801-24,200	12,901-17,400	9,801-12,600	6,201-7,700	2,250	
48,301-59,000	24,201-33,200	17,401-21,300	12,601-15,400	7,701-9,400	2,500	
59,001-70,900	33,201-39,700	21,301-25,500	15,401-18,400	9,401-11,300	2,750	
70,901-83,700	39,701-47,100	25,501-30,100	18,401-21,800	11,301-13,400	3,000	3
83,701-97,700	47,101-54,900	30,101-35,200	21,801-25,900	13,401-15,600	3,250	
97,701-112,700	54,901-63,400	35,201-40,600	25,901-29,300	15,601-18,000	3,500	
112,701-128,700	63,401-72,400	40,601-46,400	29,301-33,500	18,001-20,600	3,750	
128,701-145,900	72,401-82,100	46,401-52,500	33,501-37,900	20,601-23,300	4,000	
145,901-164,200	82,101-92,400	52,501-59,100	37,901-42,700	23,301-26,300	4,250	
164,201-183,400	92,401-103,100	59,101-66,000	42,701-47,700	26,301-29,300	4,500	4
183,401-203,700	103,101-114,600	66,001-73,300	47,701-53,000	29,301-32,600	4,750	
203,701-225,200	114,601-126,700	73,301-81,100	53,001-58,600	32,601-36,000	5,000	
225,201-247,700	126,701-139,400	81,101-89,200	58,601-65,400	36,001-39,600	5,250	
247,701-271,200	139,401-152,600	89,201-97,700	65,401-70,600	39,601-43,400	5,500	
271,201-295,900	152,601-166,500	97,701-106,500	70,601-77,000	43,401-47,400	5,750	
295,901-Greater	166,501-Greater	106,501-115,800	77,001-83,700	47,401-51,500	6,000	
—	—	115,801-125,500	83,701-90,600	51,501-55,700	6,250	
—	—	125,501-135,500	90,601-97,900	55,701-60,200	6,500	
—	—	135,501-145,800	97,901-106,800	60,201-64,800	6,750	
—	—	145,801-156,700	106,801-113,200	64,801-69,600	7,000	
—	—	156,701-167,900	113,201-121,300	69,601-74,600	7,250	
—	—	167,901-179,400	121,301-129,600	74,601-79,800	7,500	
—	—	179,401-191,400	129,601-138,300	79,801-85,100	7,750	
—	—	191,401-Greater	138,301-Greater	85,101-Greater	8,000	

For SI: 1 square foot = 0.0929 m², 1 gallon per minute = 3.785 L/m, 1 pound per square inch = 6.895 kPa.

a. Types of construction are based on the *International Building Code*.

b. Measured at 20 psi residual pressure.

511.3.4.3 Water supply for buildings equipped with an automatic sprinkler system. For buildings equipped with an approved automatic sprinkler system, the water supply shall be capable of providing the greater of:

1. The automatic sprinkler system demand, including hose stream allowance.
2. The required fire-flow.

511.4 Water supply test. The fire marshal shall be notified prior to the water supply test. Water supply tests shall be witnessed by the fire marshal. Test documentation, in an approved format, shall be provided to the fire marshal.

511.4.1 Water flow test location. The location of hydrants used to determine the available water supply shall be shown on the plans. The plans shall provide detail on how the private fire service main is connected to the city main. The size and location of the city main in the street and whether the main is dead-end or circulating shall be shown on the plans. If the main is a dead-end, the direction and distance to the nearest circulating main shall be noted on the plans. The elevation of the static and residual pressure test gauge with relation to the on-site hydrants shall be noted on the plans.

511.4.2 Quantity. The quantity of water discharged during the test will be indicated, in gallons, on the water supply test documentation.

511.4.3 Design safety factor. The water flow test results shall be adjusted as noted in Sections 511.4.4 and 511.4.5 to account for seasonal and daily flow calculations in the water supply system.

511.4.4 Static pressure equal to or more than 90 psi. When the static pressure is over 90 pounds (621 kPa) per square inch (psi) the maximum design static pressure will be 80 psi (552 kPa) regardless of the actual test pressure. The slope of the original design curve shall be used even though the design pressure is reduced to 80 psi (552 kPa).

511.4.5 Static pressure less than or equal to 90 psi. When the recorded static pressure is less than or equal to 90 psi (621 kPa), the system design shall include a minimum 10 psi (69 kPa) safety factor between the system flow and pressure demand and the available water supply.

511.4.6 Water supply data. Water supply test information for public mains shall be obtained within 180 days of plan submittal.

511.4.7 Water Discharged. The quantity of water, in gallons, discharged from the water system must be indicated on the water test report.

511.5 Fire hydrant systems. Fire hydrant systems shall comply with Sections 511.5.1 through 511.5.1.9.

511.5.1 Where required. Where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than 400 feet (122 m) from a hydrant on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains shall be provided where required by the fire marshal.

Exceptions:

1. For structures designed and constructed in accordance with the International Residential Code, Group R-3, and Group U occupancies, the distance requirement shall be 600 feet (183 m).
2. For buildings equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1, the distance requirement shall be 600 feet (183 m).

511.5.1.1 Hydrant for standpipe systems. Buildings equipped with a standpipe system installed in accordance with Section 905 shall have a fire hydrant within 100 feet (30 480 mm) of the fire department connections.

Exception: The distance shall be permitted to exceed 100 feet (30 480 mm) where approved by the fire marshal.

511.5.1.2 Maximum distance. The maximum distance to a fire hydrant, from any point of a fire apparatus access road, shall not exceed 150 feet, as measured along the roadway.

Exception: The maximum distance to a fire hydrant, from any point of a fire apparatus access road serving single-family residential developments, shall not exceed 250 feet, as measured along the roadway.

511.5.1.3 Hydrant spacing. Fire hydrants shall be spaced approximately 500 feet (152 400mm) apart in single-family residential developments and shall be approximately 300 feet (91 440mm) apart in all other development types. The distance between hydrants shall be measured along the path of the fire apparatus access road.

511.5.1.3.1 Roads separated by medians. Where streets are provided with median dividers that cannot be crossed by fire fighters pulling hose lines, or where streets are provided with four or more traffic lanes hydrant spacing shall be provided on each side of the street and be arranged on an alternating basis.

511.5.1.4 First new hydrant. The first new fire hydrant shall be located at the street intersection or at the main entrance(s) into an apartment complex or commercial development. Additional hydrants shall be spaced per section 511.5.1.4.

511.5.1.5 Side of road. New hydrants shall be located on the right-hand (passenger) side of the fire apparatus road

511.5.1.6 Distance from road. Fire hydrants shall be located not less than 1 foot (305 mm) and not more than 6 feet (1829 mm) from the back of the curb or shoulder of the private fire apparatus access road or other vehicle access point. The largest outlet on the hydrant shall face the access road.

511.5.1.7 Reflective markers. Blue 4-inch by 4-inch DOT approved retroreflective reflectors shall be used as a method of identifying fire hydrant locations. For proper placement, refer to City of Avondale Supplement to Maricopa Association of Governments Standard Specifications and Details for Public Works or as directed by the fire marshal.

511.5.1.8 Parking areas. In open-air, on-grade parking areas, at least one fire hydrant shall be located within 600 feet (182 800 mm) of all areas.

511.5.1.9 Transportation hazards. Where new water mains are extended along streets where hydrants are not needed for protection of structures or similar fire problems, fire hydrants shall be provided at spacing not to exceed 1,000 feet to provide for transportation hazards.

511.5.2 Hydrant specifications. Hydrant installations shall comply with Sections 511.5.2.1 through 507.5.2.9.

511.5.2.1 Type. All fire hydrants shall be wet barrel as defined by AWWA M17 and specified by the City of Avondale Supplement to Maricopa Association of Governments Standard Specifications and Details for Public Works Construction. New or replacement fire hydrants shall be Clow Model #860 wet barrel hydrant or equivalent with LBI Model #400 breakaway check valve or equivalent. Fire hydrants shall have two 2 ½ inch outlets and one 4 ½ inch outlet.

Exceptions:

1. Fire hydrants installed in the Liberty Water District are required to be dry barrel hydrants in accordance with Liberty Water District specifications.
2. As required by the fire marshal.

511.5.2.2 Threads. Fire hydrants shall be provided with National Standard thread and comply with the Maricopa Association of Governments Standard Specifications and Details for Public Works.

511.5.2.3 Height. Fire hydrants shall be installed so that the centerline of the lowest outlet is not less than 18 inches (457 mm) above grade and the highest outlet does not exceed 24 inches (610 mm) above grade and comply with the Maricopa Association of Governments Standard Specifications and Details for Public Works.

511.5.2.4 Color of hydrants. Private fire hydrants shall be OSHA Safety Red or equivalent in color. Exterior coatings for new hydrants shall be factory-applied enamel, or equivalent factory-applied coating. The exterior coatings shall be maintained as required.

511.5.3 Obstruction. Unobstructed access to fire hydrants shall always be maintained. The fire department shall not be deterred or hindered from gaining immediate access to fire protection equipment or fire hydrants.

511.5.4 Clear space around hydrants. A 3-foot (914 mm) clear space shall be maintained around the circumference of fire hydrants, except as otherwise required or approved.

511.5.5 Physical protection. Where fire hydrants are subject to impact by a motor vehicle, guard posts or other approved means shall comply with Section 312.

SECTION 512 FIRE COMMAND CENTER

512.1 General. Where required by other sections of this code and in all buildings classified as high-rise buildings by the International Building Code, a fire command center for fire department operations shall be provided and shall comply with Sections 512.1.1 through 512.1.6.

512.1.1 Location and access. The location and accessibility of the fire command center shall be approved by the fire marshal.

512.1.2 Separation. The fire command center shall be separated from the remainder of the building by not less than a 1-hour fire barrier constructed in accordance with Section 707 of the International Building Code or horizontal assembly constructed in accordance with Section 711 of the International Building Code, or both.

512.1.3 Size. The fire command center shall be not less 0.015 percent of the total building area of the facility served or 200 square feet (19 m²) in area, whichever is greater, with a minimum dimension of 0.7 times the square root of the room area or 10 feet (3048 mm), whichever is greater.

512.1.4 Layout approval. A layout of the fire command center and all features required by this section to be contained therein shall be submitted for approval prior to installation.

512.1.5 Storage. Storage unrelated to operation of the fire command center shall be prohibited.

512.1.6 Required features. The fire command center shall comply with NFPA 72 and shall contain the following features:

1. The emergency voice/alarm communication system control unit.
2. The fire department communications system.
3. Fire detection and alarm system annunciator.
4. Annunciator unit visually indicating the location of the elevators and whether they are operational.
5. Status indicators and controls for air distribution systems.

6. The fire fighter's control panel required by Section 909.16 for smoke control systems installed in the building.
7. Controls for unlocking stairway doors simultaneously.
8. Sprinkler valve and water-flow detector display panels.
9. Emergency and standby power status indicators.
10. A telephone for fire department use with controlled access to the public telephone system.
11. Fire pump status indicators.
12. Schematic building plans indicating the typical floor plan and detailing the building core, means of egress, fire protection systems, fire-fighter air replenishment systems, fire-fighting equipment and fire department access, and the location of fire walls, fire barriers, fire partitions, smoke barriers and smoke partitions.
13. An approved Building Information Card that includes, but is not limited to, all the following information:
 - 13.1. General building information that includes property name, address, the number of floors in the building above and below grade, use and occupancy classification (for mixed uses, identify the different types of occupancies on each floor) and the estimated building population during the day, night and weekend;
 - 13.2. Building emergency contact information that includes: a list of the building's emergency contacts including but not limited to building manager, building engineer and their respective work phone number, cell phone number and e-mail address;
 - 13.3. Building construction information that includes: the type of building construction including but not limited to floors, walls, columns and roof assembly;
 - 13.4. Exit access stairway and exit stairway information that includes: number of exit access stairways and exit stairways in building; each exit access stairway and exit stairway designation and floors served; location where each exit access stairway and exit stairway discharges, interior exit stairways that are pressurized; exit stairways provided with emergency lighting; each exit stairway that allows reentry; exit stairways providing roof access; elevator information that includes: number of elevator banks, elevator bank designation, elevator car numbers and respective floors that they serve; location of elevator machine rooms, control rooms and control spaces; location of sky lobby; and location of freight elevator banks;
 - 13.5. Building services and system information that includes location of mechanical rooms, location of building management system, location and capacity of all fuel oil tanks, location of emergency generator and location of natural gas service;
 - 13.6. Fire protection system information that includes location of standpipes, location of fire pump room, location of fire department connections, floors protected by automatic sprinklers and location of different types of automatic sprinkler systems installed including but not limited to dry, wet and pre-action;
 - 13.7. Hazardous material information that includes location and quantity of hazardous material.
14. Worktable.
15. Generator supervision devices, manual start and transfer features.
16. Public address system, where specifically required by other sections of this code.

17. Elevator fire recall switch in accordance with ASME A17.1.

18. Elevator emergency or standby power selector switch(es), where emergency or standby power is provided.

SECTION 513 FIRE PROTECTION AND UTILITY EQUIPMENT IDENTIFICATION AND ACCESS

513.1 Identification. Fire protection equipment shall be identified in an approved manner. Rooms containing controls for air-conditioning systems, sprinkler risers and valves, or other fire detection, suppression or control elements shall be identified for the use of the fire department. Approved signs required to identify fire protection equipment and equipment location shall be constructed of durable materials, permanently installed and readily visible.

513.1.1 Utility identification. Where required by the fire marshal, gas shutoff valves, electric meters, service switches and other utility equipment shall be clearly and legibly marked to identify the unit or space that it serves. Identification shall be made in an approved manner, readily visible and shall be maintained.

513.2 Equipment access. Approved access shall be provided and maintained for all fire protection equipment to permit immediate safe operation and maintenance of such equipment. Storage, trash and other materials or objects shall not be placed or kept in such a manner that would prevent such equipment from being readily accessible.

SECTION 514 EMERGENCY RESPONDER RADIO COVERAGE

514.1 Emergency responder radio coverage in new buildings. New buildings shall have approved radio coverage for emergency responders within the building based upon the existing coverage levels of the public safety communication systems of the jurisdiction, measured at the exterior of the building. This section shall not require improvement of the existing public safety communication systems.

Exceptions:

1. VHF Hazard Channel Radio System coverage in buildings other than State, County, and Public-School buildings, unless specifically required by the fire marshal.
2. Where approved by the building official and the fire marshal, a wired communication system in accordance with Section 907.2.13.2 shall be permitted to be installed or maintained instead of an approved radio coverage system.
3. Where it is determined by the fire marshal that the radio coverage system is not needed.
4. In facilities where emergency responder radio coverage is required and such systems, components or equipment required could have a negative impact on the normal operations of that facility, the fire marshal shall have the authority to accept an automatically activated emergency responder radio coverage system.

514.2 Emergency responder radio coverage in existing buildings. Existing buildings shall be provided with approved radio coverage for emergency responders as required in Chapter 11.

514.3 Permit required. A construction permit for the installation of or modification to emergency responder radio coverage systems and related equipment is required as specified in Section 105.7.6. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

514.3.4 Rebroadcast. At time of application, the applicant must present the fire marshal with written approval from the Regional Wireless Coalition that rebroadcast of radio signals have been approved.

514.4 Technical requirements. Systems, components and equipment required to provide the emergency responder radio coverage system shall comply with Sections 514.4.1 through 514.4.2.5.

514.4.1 Radio signal strength. The building shall be considered to have acceptable emergency responder radio coverage when signal strength measurements in 95 percent of all areas on each floor of the building meet the signal strength requirements in Sections 514.4.1.1 and 514.4.1.3.

514.4.1.1 Minimum signal strength into the building. The minimum inbound signal strength shall be sufficient to provide usable voice communications throughout the coverage area as specified by the fire marshal. The inbound signal level shall be sufficient to provide not less than a Delivered Audio Quality (DAQ) of 3.0 or an equivalent SINR applicable to the technology for either analog or digital signals.

514.1.2 Minimum signal strength out of the building. The minimum outbound signal strength shall be sufficient to provide usable voice communications throughout the coverage area as specified by the fire marshal. The outbound signal level shall be sufficient to provide not less than a DAQ of 3.0 or an equivalent Signal-to-Interference-Plus-Noise Ratio (SINR) applicable to the technology for either analog or digital signals.

514.1.3 System performance. Signal strength shall be sufficient to meet the requirements of the applications being utilized by public safety for emergency operations through the coverage area as specified by the fire marshal in Section 514.4.2.2.

514.4.2 System design. The emergency responder radio coverage system shall be designed in accordance with Sections 514.4.2.1 through 514.4.2.8 and NFPA 1221.

514.4.2.1 Amplification systems and components. Buildings and structures that cannot support the required level of radio coverage shall be equipped with systems and components to enhance the public safety radio signals and achieve the required level of radio coverage specified in Sections 514.4.1 through 514.4.1.3. Public safety communications enhancement systems utilizing radio-frequency-emitting devices and cabling shall be approved by the fire marshal. Prior to installation, all RF-emitting devices shall have the certification of the radio licensing authority and be suitable for public safety use.

514.4.2.1 Boosters. Signal boosters must be approved by the Regional Wireless Coalition.

514.4.2.2 Technical criteria. The fire marshal shall maintain a document providing the specific technical information and requirements for the emergency responder radio coverage system. This document shall contain, but not be limited to, the various frequencies required, the location of radio sites, effective radiated power of radio sites, the maximum propagation delay in microseconds, the applications being used and other supporting technical information necessary for system design.

514.4.2.3 Standby power. Emergency responder radio coverage systems shall be provided with dedicated standby batteries or provided with 2-hour standby batteries and connected to the facility generator power system in accordance with Section 1203. The standby power shall be capable of operating the emergency responder coverage radio system at 100-percent system capacity for a duration of not less than 24 hours.

514.4.2.4 Signal booster requirements. If used, signal boosters shall meet the following requirements:

1. All signal booster components shall be contained in a National Electrical Manufacturer's Association (NEMA) 4-type waterproof cabinet.
2. Battery systems used for the emergency power source shall be contained in a NEMA 3R or higher-rated cabinet.
3. Equipment shall have FCC or other radio licensing authority certification and be suitable for public safety use prior to installation.
4. Where a donor antenna exists, isolation shall be maintained between the donor antenna and all inside antennas to not less than 20dB greater than the system gain under all operating conditions.

5. Bi-Directional Amplifiers used in emergency responder radio coverage systems shall have oscillation prevention circuitry.

6. The installation of amplification systems or systems that operate on or provide the means to cause interference on any emergency responder radio coverage networks shall be coordinated and approved by the fire marshal.

514.4.2.5 System monitoring. The emergency responder radio enhancement system shall be monitored by a listed fire alarm control unit, or where approved by the fire marshal, shall sound an audible signal at a constantly attended on-site location. Automatic supervisory signals shall include the following;

1. Loss of normal AC power supply,
2. System battery charger(s) failure,
3. Malfunction of the donor antenna(s),
4. Failure of active RF-emitting devices,
5. Low-battery capacity at 70-percent reduction of operating capacity,
6. Failure of critical system components,
7. The communications link between the fire alarm system and the emergency responder radio enhancement system.

514.4.2.6 Additional frequencies and change of frequencies. The emergency responder radio coverage system shall be capable of modification or expansion in the event frequency changes are required by the FCC or additional frequencies are made available by the FCC or other radio licensing authority.

514.4.2.7 Design documents. The fire marshal shall have the authority to require “as-built” design documents and specifications for emergency responder communications coverage systems. The documents shall be in a format acceptable to the fire marshal.

514.4.2.8 Radio communication antenna density. System shall be engineered to minimum the near-far effect. Radio enhancement system designs shall include sufficient antenna density to address reduces gain conditions.

Exceptions:

1. Class A narrow band signal booster devices with independent AGC/ALC circuits per channel.
2. Systems where all portable devices within the same band use active power control features.

514.5 Installation requirements. The installation of the public safety radio coverage system shall be in accordance with NFPA 1221 and Sections 514.5.1 through 514.5.4.

514.5.1 Approval prior to installation. Amplification systems capable of operating on frequencies licensed to any public safety agency by the FCC shall not be installed without prior coordination and approval of the fire marshal.

514.5.2 Minimum qualifications of personnel. The minimum qualifications of the system designer and lead installation personnel shall include both of the following:

1. A valid FCC-issued general radio operators license.

2. Certification of in-building system training issued by a nationally recognized organization, school or a certificate issued by the manufacturer of the equipment being installed.

These qualifications shall not be required where demonstration of adequate skills and experience satisfactory to the fire marshal is provided.

514.5.3 Acceptance test procedure. Where an emergency responder radio coverage system is required, and upon completion of installation, the building owner shall have the radio system tested to verify that two-way coverage on each floor of the building is not less than 95 percent. The test procedure shall be conducted as follows:

1. Each floor of the building shall be divided into a grid of 20 approximately equal test areas.
2. The test shall be conducted using a calibrated portable radio of the latest brand and model used by the agency talking through the agency's radio communications system or equipment approved by the fire marshal.
3. Failure of more than one test areas shall result in failure of the test.
4. In the event that two of the test areas fail the test, in order to be more statistically accurate, the floor shall be permitted to be divided into 40 equal test areas. Failure of not more than four nonadjacent test areas shall not result in failure of the test. If the system fails the 40-area test, the system shall be altered to meet the 95-percent coverage requirement.
5. A test location approximately in the center of each test area shall be selected for the test, with the radio enabled to verify two-way communications to and from the outside of the building through the public agency's radio communications system. Once the test location has been selected, that location shall represent the entire test area. Failure in the selected test location shall be considered failure of that test area. Additional test locations shall not be permitted.
6. The gain values of all amplifiers shall be measured, and the test measurement results shall be kept on file with the building owner so that the measurements can be verified during annual tests. If the measurement results become lost, the building owner shall be required to rerun the acceptance test to reestablish the gain values.
7. As part of the installation a spectrum analyzer or other suitable test equipment shall be utilized to ensure spurious oscillations are not being generated by the subject signal booster. This test shall be conducted at the time of installation and subsequent annual inspections.
8. Systems incorporating Class B signal-booster devices or Class B broadband fiber remote devices shall be tested using two portable radios simultaneously conducting subjective voice quality checks. One portable radio shall be positioned not greater than 10 feet from the indoor antenna. The second portable radio shall be positioned at a distance that represents the farthest distance from any indoor antenna. With both portable radios simultaneously keyed up on different frequencies within the same band, subjective audio testing shall be conducted and comply with DAQ levels as specified in Sections 514.4.1.1 and 514.4.1.2.

514.5.4 FCC compliance. The emergency responder radio coverage system installation and components shall also comply with all applicable federal regulations including, but not limited to, FCC 47 CFR Part 90.219.

514.6 Maintenance. The emergency responder radio coverage system shall always be maintained operational in accordance with Sections 514.6.1 through 514.6.4.

514.6.1 Testing and proof of compliance. The emergency responder radio coverage system shall be inspected and tested annually or where structural changes occur including additions or remodels that could materially change the original field performance tests. Testing shall consist of the following:

1. In-building coverage test as described in Section 514.5.3.

2. Signal boosters shall be tested to verify that the gain is the same as it was upon initial installation and acceptance.
3. Backup batteries and power supplies shall be tested under load of a period of 1 hour to verify that they will properly operate during an actual power outage. If within the 1-hour test period, the battery exhibits symptoms of failure, the test shall be extended for additional 1-hour periods until the integrity of the battery can be determined.
4. Other active components shall be checked to verify operation within the manufacturer's specifications.
5. At the conclusion of the testing, a report, which shall verify compliance with Section 514.5.3, shall be submitted to the fire marshal.

514.6.2 Additional frequencies. The building owner shall modify or expand the emergency responder radio coverage system at his or her expense in the event frequency changes are required by the FCC or additional frequencies are made available by the FCC. Prior approval of a public safety radio coverage system on previous frequencies does not exempt this section.

514.6.3 Nonpublic safety system. Where other nonpublic safety communication systems installed in buildings reduce the performance or cause interference with the emergency responder communication coverage system, the nonpublic safety system shall be corrected or removed.

514.6.4 Field testing. Agency personnel shall have the right to enter onto the property at any reasonable time to conduct field testing to verify the required level of radio coverage.

SECTION 515 CONTROLLED ACCESS/SECURITY GATES OR BARRIERS

515.1 General. The installation of controlled access/security gates or barriers across a fire apparatus access road shall be approved by the fire marshal and meet the requirements of Section 515.

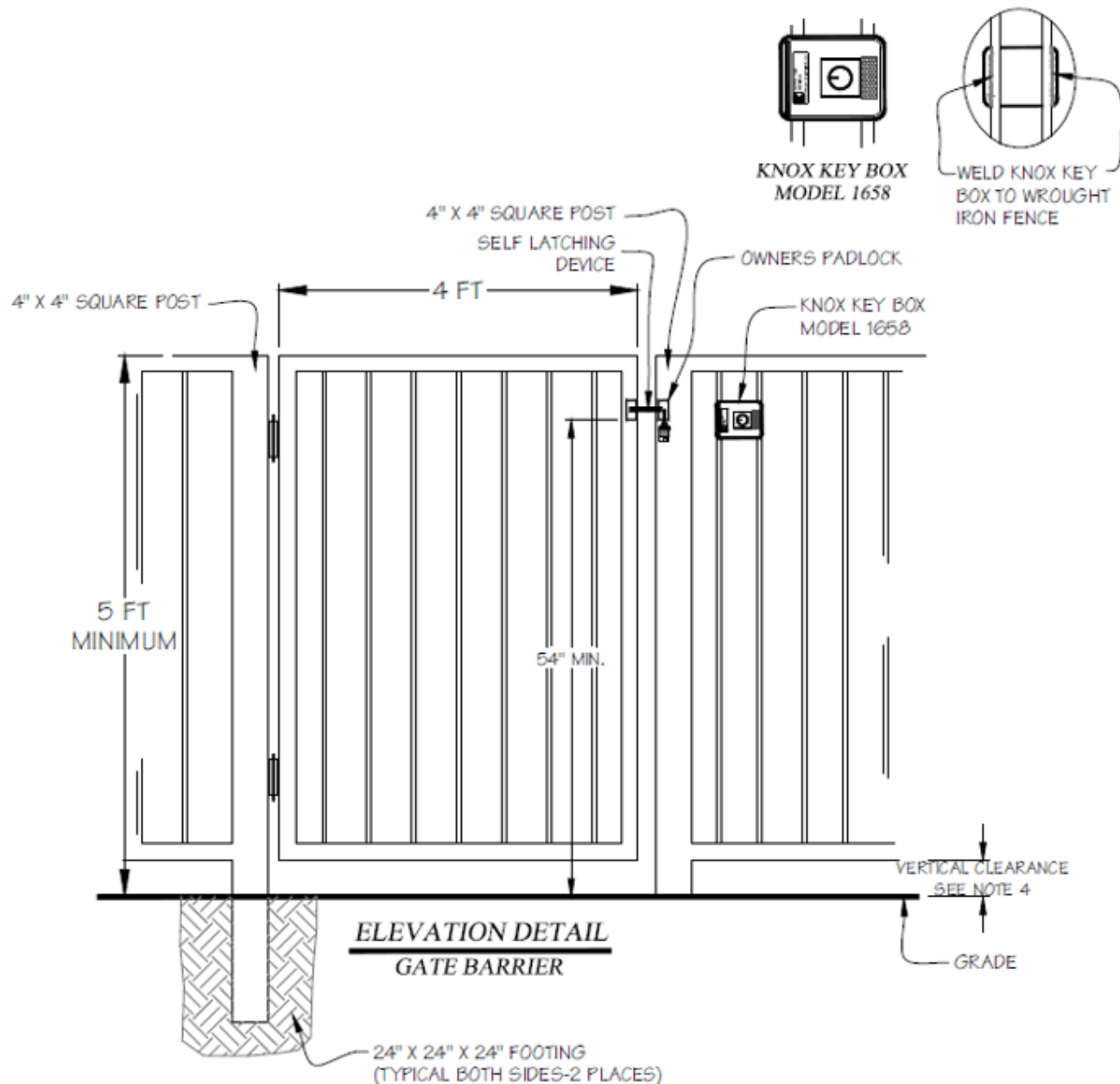
515.1.1 Permits. Permits shall be required to install or modify controlled access gates.

515.1.2 Gate installation companies. When gates are installed at any location that obstructs a fire apparatus access road, the installing company shall be licensed by the Arizona Registrar of Contractors as L-5 or C-5.

515.1.3 Egress. Fire apparatus access/security gates or barriers shall be designed and installed such that they do not obstruct the egress or departure of emergency vehicles.

511.1.3.1 Pedestrian gates. Pedestrian gates installed as part of the means of egress shall comply with this section, the Avondale Building Code, and Chapter 10 of this code.

**Figure 515.1.3.1
Pedestrian Gate Detail**



515.1.4 Maintenance. All fire apparatus access gates shall always be maintained operable and shall be inspected at least annually. Copies of the annual inspection report shall be maintained and be accessible for fire department review.

515.1.5 Inoperable gates. Controlled access gates that are inoperable and impede the entrance of fire apparatus shall be chained open or removed at the owner's expense.

515.1.6 Illegal gates. Controlled access gates that obstruct fire apparatus access roads and have been installed without a permit shall be chained open or removed at the owner's or installing contractor's expense until a permit and final approval has been obtained from the fire department.

515.1.7 F.D. Access Sign. A "F.D. Access" sign shall be installed on of all gates or barriers that cross a

required fire apparatus road or walkway. The sign will be installed so that it faces the direction of the fire apparatus access road. The sign face shall be 8-inch by 4-inch, fabricated from .080 aluminum sheet with ½-inch radius corners and a white 3M Scotchlite reflective background, inverse-cut letters to allow white reflective background to show through, and a red face.



515.1.8 Main entrance identification sign. The sign face shall be a minimum 36-inch by 24-inch, fabricated from .080 aluminum sheet with ½-inch radius corners, a white 3M Scotchlite reflective background, inverse-cut letters to allow white reflective background to show through, and a red face. The sign shall include the “Apartment Name” (top position), “APARTMENT ACCESS” (middle position), and an arrow indicating the location of the main access entrance (bottom position).

515.1.9 Approved key switch. Approved key switches shall be manufactured by the Knox Company and equipped with the City of Avondale keyway.

515.2 Fire apparatus access gates.

515.2.1 General. Fire apparatus access gates shall be configured in accordance with Figures 515.2.1(a) through 515.2.1(e), or as approved by the fire marshal.

515.2.2 Automatic operation. Fire apparatus access gates shall have automatic operation where no turnaround is provided for fire apparatus.

515.2.3 Main entrance identification. Access openings shall have a main entrance identification sign according to Section 515.1.8 attached on the street side of the fire apparatus access gate.

515.2.4 Marking and signage. Manual and automatic access openings are required to be marked in accordance with Section 515.3.5.

Figure 515.2.1(a)
Single Manual Swing Gate

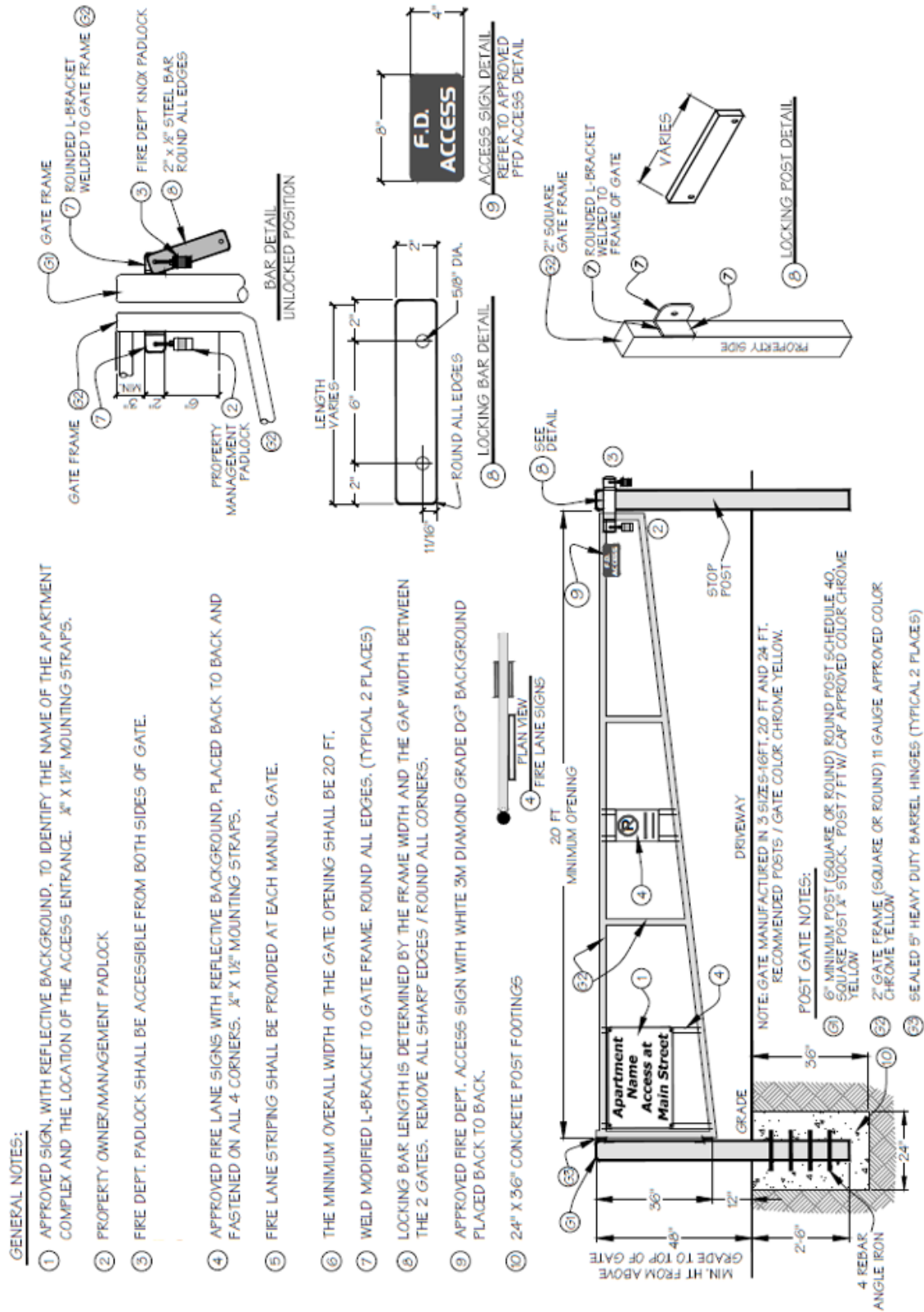


Figure 515.2.1(b)
Dual Manual Swing Gate

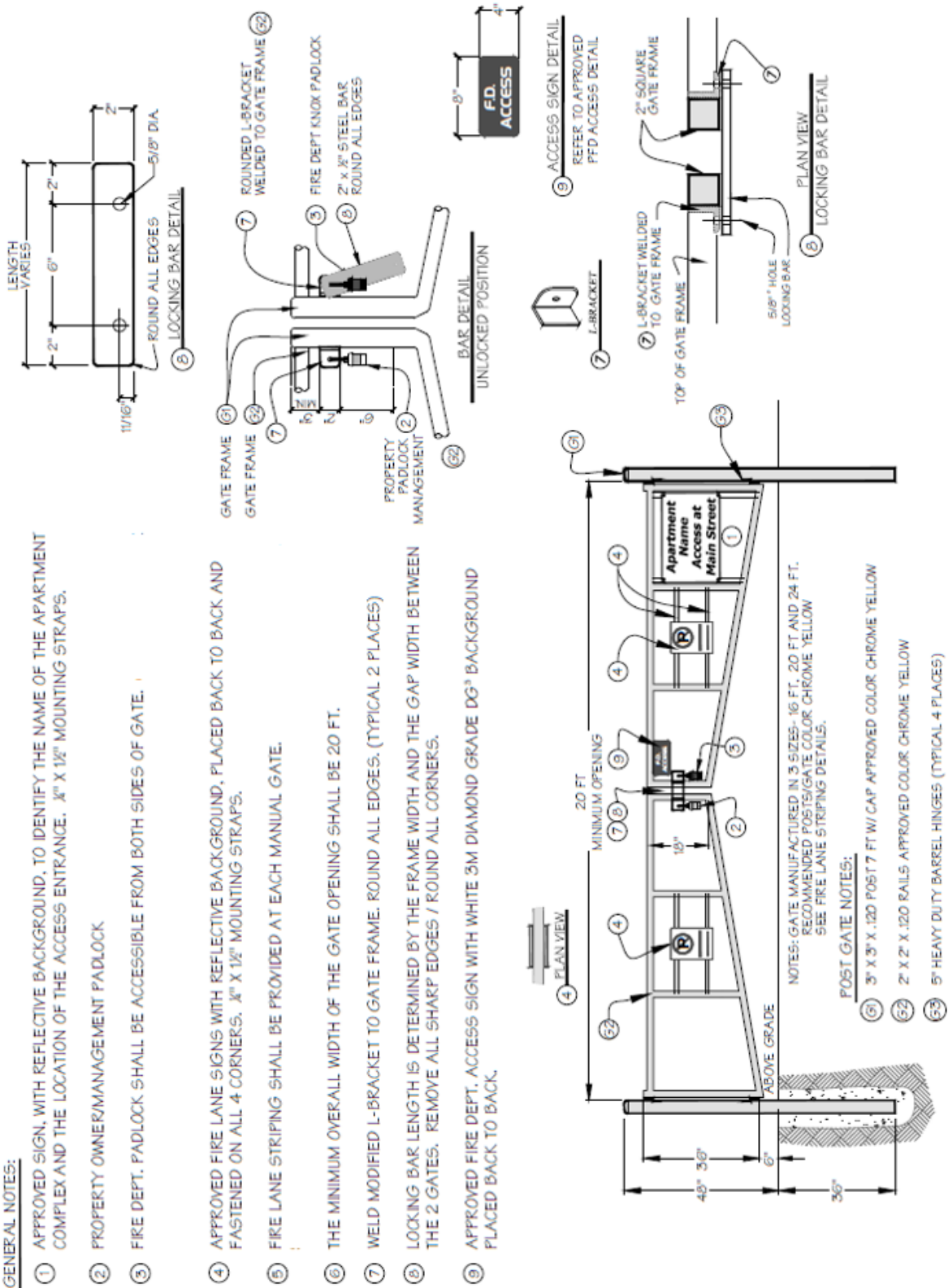
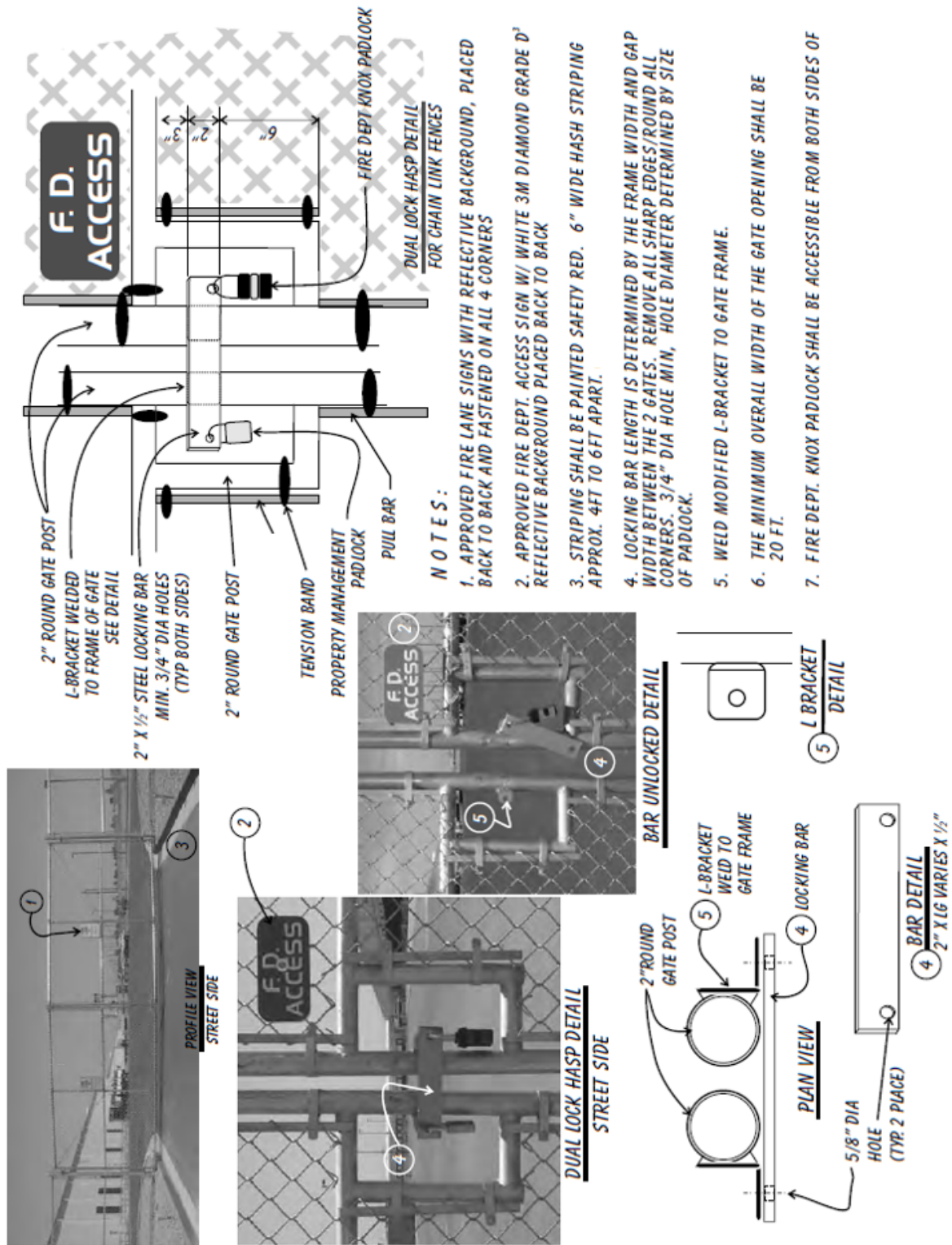


Figure 515.2.1(c)
Manual Chain Link Gate



MANUAL SWING GATE

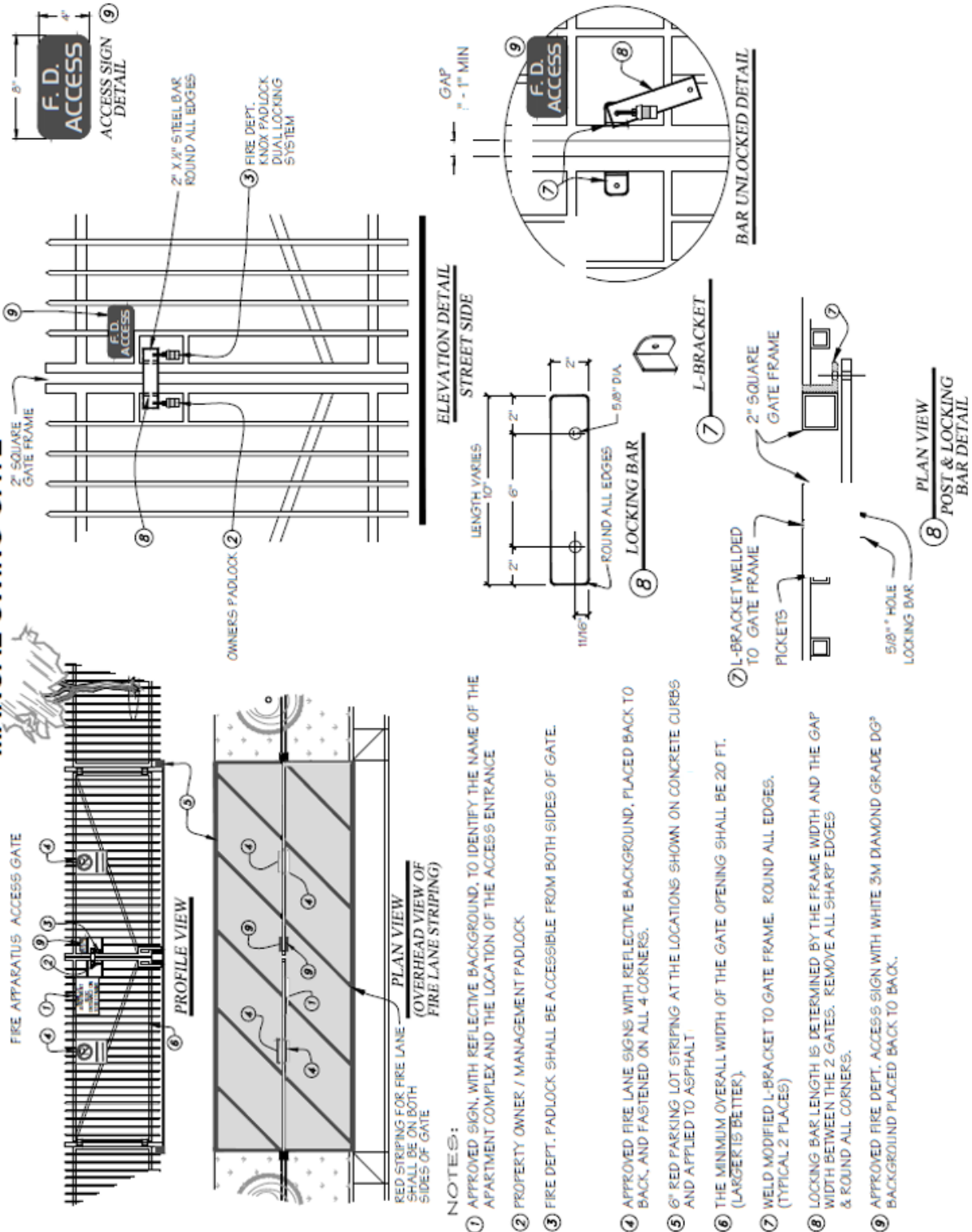


Figure 515.2.1(d)
Manual Swing Gate

APPROVED AUTOMATIC VEHICLE ACCESS GATE PREEMPTION DETECTORS WITH KNOX KEY SWITCHES

NOTES:

- ① EACH AUTOMATIC GATE SHALL HAVE TOMAR MODEL 2795-2 DUAL HEAD UNIT.
- ② DETECTORS SHALL BE MOUNTED 8 TO 10 FEET FROM GRADE ON A 4" X 4" METAL POST.
- ③ DETECTORS SHALL BE ON SEPARATE POST, NOT ON GUIDE POST.
- ④ DETECTORS SHALL POINT TOWARD THE APPROACH PATH AND EXIT PATH OF THE EMERGENCY VEHICLES. DETECTORS MUST ACTIVATE WITHIN 150 FEET FROM GATE.
- ⑤ THE POWER MODULE SHALL BE MOUNTED IN AN ELECTRICAL JUNCTION BOX, UNDER THE DETECTORS ON THE SAME 4" X 4" METAL POST.
- ⑥ THE 4" X 4" SQUARE POST WITH DETECTOR AND POWER MODULE SHALL BE INSTALLED ON THE PROPERTY SIDE OF THE GATE.
- ⑦ APPROVED EMERGENCY KEY SWITCH SHALL BE INSTALLED ON THE ENTRANCE AND EXIT SIDE OF EACH ACCESS GATE. ENTRANCE SWITCH SHALL BE LOCATED ABOVE THE RESIDENCE KEY PAD 5% FT FROM GRADE. EXIT SWITCH SHALL BE RECESSED INTO THE 4" X 4" POST WITH THE DUAL DETECTORS AND POWER MODULE UNIT.

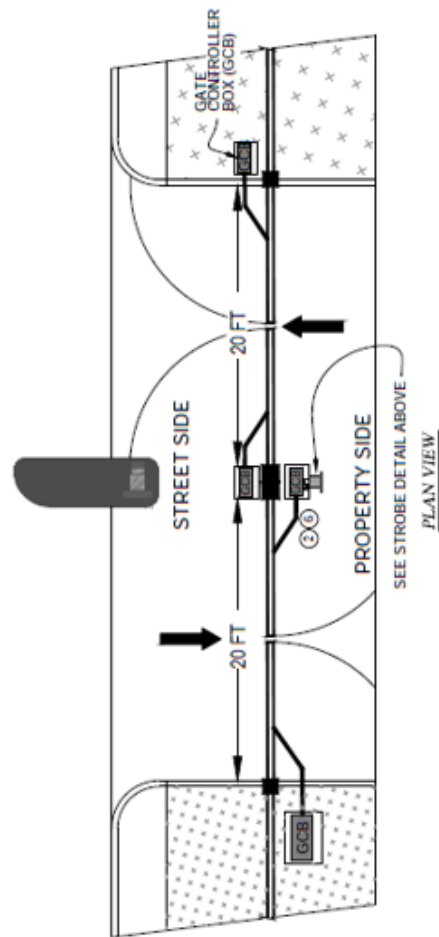
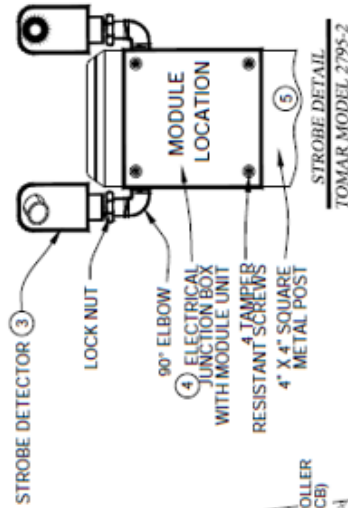
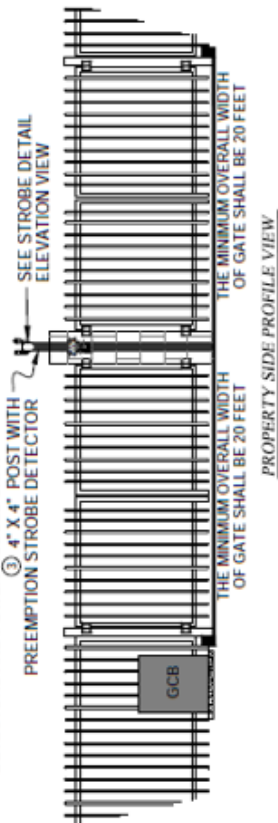
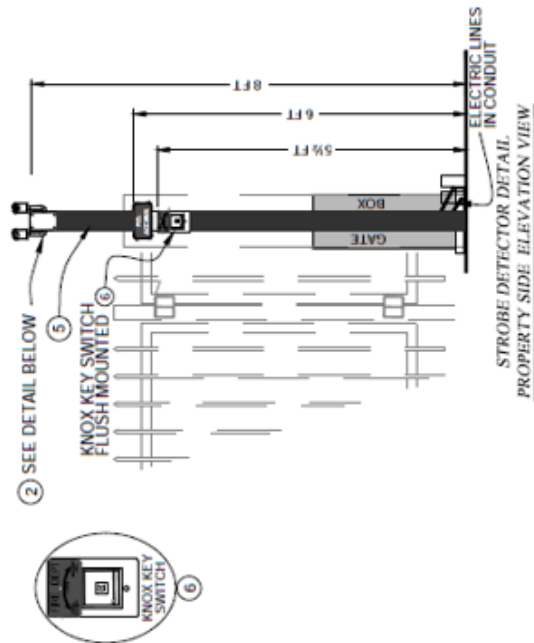


Figure 515.2.1(e)
Automatic Gate

515.3 Controlled access gate specifications. When controlled access gates are installed across a fire apparatus access road the specifications in Section 515.2 shall apply.

515.3.1 Opening width. When the gate is fully opened, a minimum 20-foot (6096 mm) clear width shall be provided for both the entrance and exit gates. Gates installed and approved prior July 1, 2020, shall be maintained in accordance with the original approval. The fire marshal shall require additional width opening when a 45-foot (13 716 mm) fire apparatus turning radius cannot be met.

Exception: Access roads serving three or fewer Group R-3 occupancies within 350 feet (106 680 mm) from the street to each residence's main entrance, as the fire fighters travel shall be exempt from the requirement of 20 feet (6096 mm).

515.3.2 Electric and solar voltaic power system operated gates. Electric and solar operated gates shall be installed in accordance with this section.

515.3.2.1 Standby power systems. Electric and solar operated gates shall be provided with a standby power system. Standby power is permitted to be, but not limited to, battery back-up or connection to an emergency generator. The activation of the system shall open gates and maintain them in the open position until primary power is restored to the system. Standby power systems are required to comply with the National Electrical Code Article 701.

Exception: Controlled access gates installed at occupancies other than multifamily residential properties may remain closed until the emergency gate switch is activated and shall then remain open while the standby power system is operating the gate.

515.3.3 Opening time. Electric and solar operated controlled access gates shall open at a minimum rate of 1 foot per second (0.305 m/s).

515.3.4 Key switch. Each electric and solar operated controlled access gate shall be equipped with an approved key switch on both sides of the gate. When separate entry and exit gates are provided, the emergency key switch shall open the entrance and exit gates.

515.3.5 Key switch identification. An approved F.D. ACCESS sign in accordance with Section 515.1.7 shall be installed within 12 inches (305 mm) of the emergency key switch. The key switch shall be illuminated to be visible from fire apparatus.

515.3.6 Height. The key switch shall be mounted between 51/2 and 6 feet (1676 to 1829 mm) above grade.

515.3.6.1 Solar photovoltaic cell location. The solar cell shall be located a minimum of 7 feet (2133 mm) above grade. The photovoltaic cell shall be located on the 4 by 4-inch preemption post.

515.3.7 Obstruction and impairment. Posts, fences, vehicles, growth, trash, storage and other materials shall not be kept near key switches in a manner that would prevent the key switches from being visible.

515.3.8 Bypass of systems. When activated, the emergency key switch shall bypass all occupant and loop switch systems.

515.4 Preemption devices. Preemption devices are required on all new automatic fire access gates. Existing gates installed without permits or proof of installation date shall be retrofitted with preemption devices. Voluntary installations of preemption devices shall comply with the requirements of this Section.

Exception: Access road serving three or fewer Group R-3 occupancies.

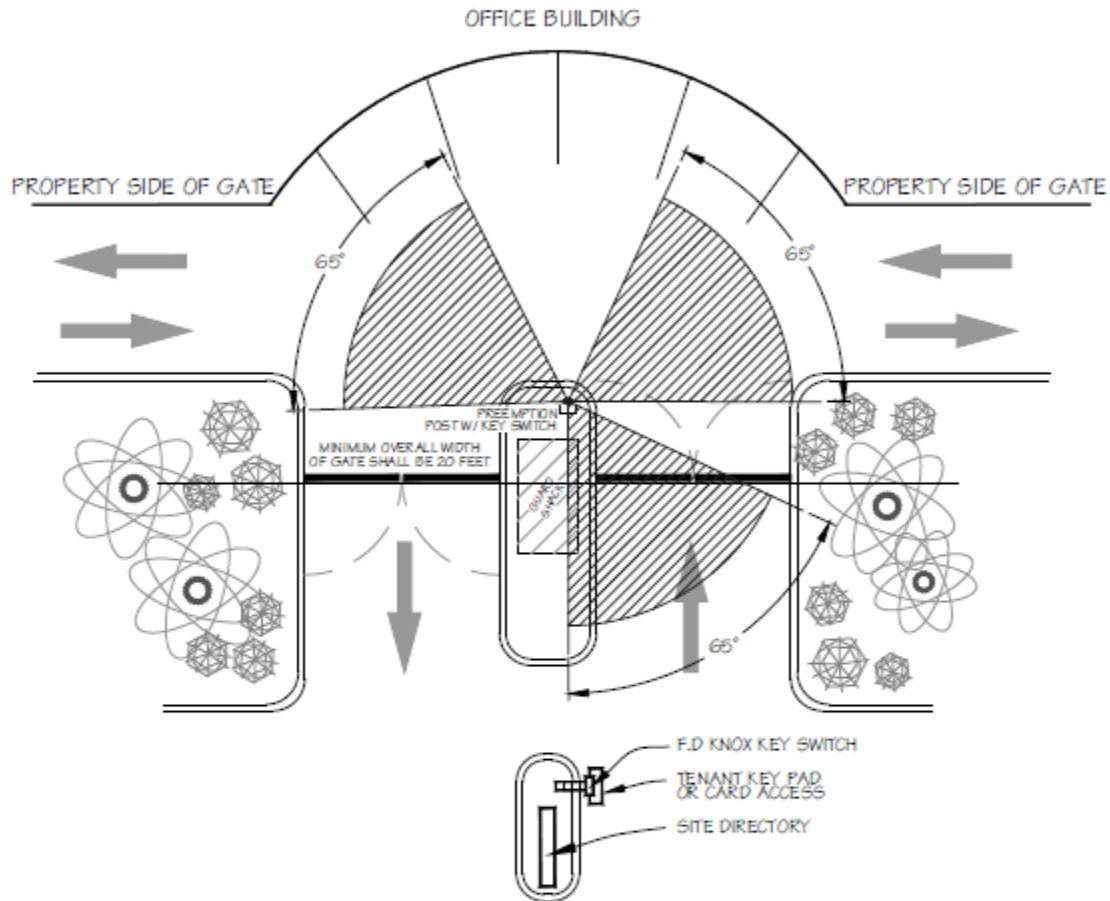
515.4.1 Locations. The devices shall be installed such that the gate will open for both ingress and egress of emergency vehicles.

515.4.2 Minimum installation standards. The installation of preemption devices shall comply with the following:

1. Detectors shall be mounted 8 to 10 feet (2439 to 3048 mm) above grade.
2. Detectors shall be located a minimum of 18 inches (457 mm) behind the gate on the property side.
3. Detectors shall be mounted on a separate 4 by 4-inch (102 to 102 mm) metal post and not on the guidepost. The metal post shall be cemented a minimum of 18 inches (457 mm) below grade.
4. Detectors shall activate at a minimum of 150 feet (45 720 mm) from the gate.
5. Detectors shall point toward both the approach and the exit path of the emergency vehicle. Refer to Figures 515.4.2(a) and 515.4.2(b).
6. The sight path of the detector shall be free of visual obstructions such as signs, covered parking, canopies and vegetation.
7. Individual detectors shall be mounted together with the power module in the dual detector-mounting box. Detectors shall be approved by the fire department.

Figure 515.4.2(a)
Automatic Gate Entrance with 3
Preemption Devices

TOMAR MODEL 2795-3

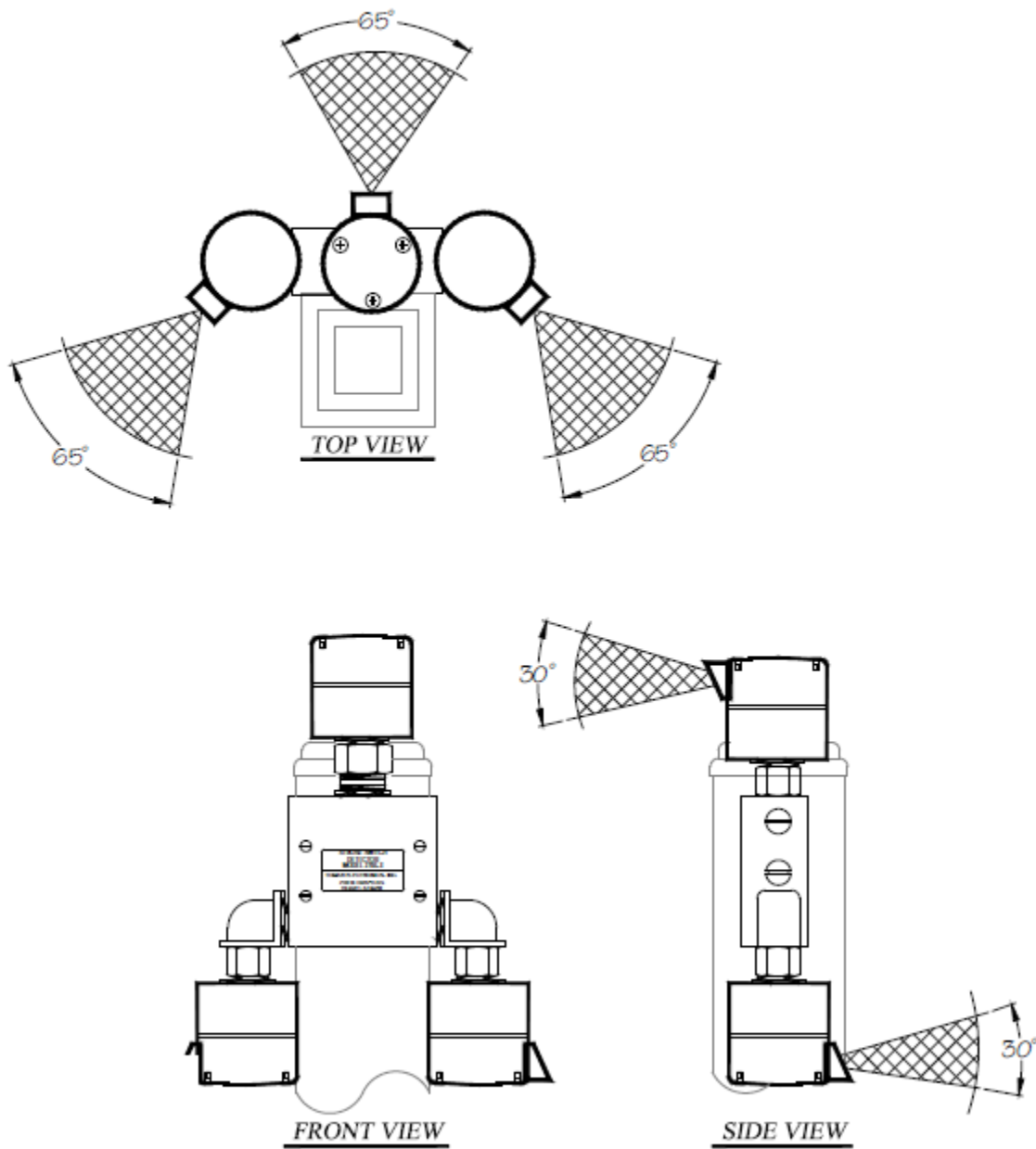


NOTES:

1. DETECTORS SHALL BE MOUNTED 8 TO 10 FEET FROM GRADE ON A 4" X 4" METAL POST. NO MIRRORS SHALL SUBSTITUTE THE REQUIREMENTS OF TWO DETECTORS PER GATE.
2. DETECTORS SHALL POINT TOWARD THE APPROACH PATH AND EXIT PATH OF THE EMERGENCY VEHICLES. DETECTORS MUST ACTIVATE 150 FEET FROM GATE.

 POWER MODULE SHALL BE MOUNTED IN AN ELECTRICAL JUNCTION BOX, UNDER THE DETECTORS ON THE SAME 4" X 4" METAL POST.
4. THE 4" X 4" SQUARE POST WITH DETECTOR AND POWER MODULE SHALL BE INSTALLED ON THE PROPERTY SIDE OF THE GATE. (NOT ON GUIDE POST)
5. APPROVED EMERGENCY KEY SWITCH SHALL BE INSTALLED ON THE ENTRANCE AND EXIT SIDE OF EACH ACCESS GATE. ENTRANCE SWITCH SHALL BE LOCATED ABOVE THE RESIDENCE KEY PAD 5 1/2 FT FROM GRADE. EXIT SWITCH SHALL BE LOCATED ON THE 4" X 4" POST WITH THE DUAL DETECTORS AND POWER MODULE UNIT.

Figure 515.4.2(b)
3 Tomar Preemption Devices



NOTE:

3 HEADS ARE REQUIRED WITH 90° TURNING LAYOUTS

515.5 Manual controlled access gates. Manual controlled access gates that cross a fire apparatus access roads or other roads that, when determined by the fire marshal, provide access to areas where immediate access is necessary for lifesaving or fire-fighting purposes shall comply with Section 515.3.

515.5.1 Locking mechanism. All manual controlled access gates that cross a fire apparatus access road shall use an approved dual padlock mechanism in accordance with Figures 515.2.1(a) through 515.2.1(d).

515.5.2 Signs. Approved signs shall be provided on the manual gates. The signs shall have a reflective background and shall be bolted back-to-back onto each side of the gate in accordance with Figures 515.2.1(a) through 515.2.1(d).

515.5.3 Marking. Minimum 6-inch (152 mm) wide red, crosshatched striping shall be painted on the ground surface on both sides of the manual access gate, including recessed areas as determined by the fire department. A minimum of two applications of paint is required.

Section 807.5.2 is deleted in its entirety and replaced with the following:

807.5.2 Group E. Group E occupancies shall comply with Sections 807.5.2.1 through 807.5.2.2.

Section 807.5.2.3 is deleted in its entirety.

Section 901.4.6 through 901.4.6.4 is deleted in its entirety and replaced with the following:

901.4.6 Pump and riser room size. Where provided, fire pump rooms and automatic sprinkler system riser rooms shall be dedicated for the purpose, designed with 36 inches of clear space around all equipment necessary for the installation, as defined by the manufacturer, with enough working space around the stationary equipment. Clearances around equipment to elements of permanent construction, including other installed equipment and appliances, shall be enough to allow inspection, service, repair or replacement without removing such elements of permanent construction or disabling the function of a required fire-resistance-rated assembly. Fire pump and automatic sprinkler system riser rooms shall be provided with a door(s) and an unobstructed passageway large enough to allow removal of the largest piece of equipment.

901.4.6.1 Access. Rooms for automatic sprinkler system risers, fire pumps and controllers shall be provided with a door leading directly outside. An approved Knox key box is required adjacent to the door's strike leg or an approved location.

901.4.6.1.1 Walking surface. A sidewalk or other approved hard all-weather surface leading from the fire apparatus access road to the exterior door of the automatic sprinkler system riser rooms and fire pump rooms is required.

901.4.6.2 Marking on access doors. Access doors for automatic sprinkler system riser rooms and fire pump rooms shall be labeled with an approved sign. Where a fire alarm control panel is located inside the riser room, the sign shall state, "Fire Control Room", in all other cases it shall read, "Sprinkler Riser" or "Fire Pump".

901.4.6.2 Signs. The sign face shall be 12-inch by 12-inch, fabricated from .080 aluminum sheet with ½-inch radius corners, white 3M Scotchlite reflective background, 1.5-inch inverse cut letters to allow white reflective background to show through, and a red face.

901.4.6.3 Environment. Automatic sprinkler system riser rooms and fire pump rooms shall be maintained at a temperature of not less than 40 degrees Fahrenheit. Heating units shall be permanently installed. When a fire alarm panel is co-located within an automatic sprinkler riser room, the room must be provided with the necessary air-conditioning equipment to maintain an ambient temperature consistent with the fire alarm panel's listing.

901.4.6.4 Lighting. Permanently installed artificial illumination and emergency lighting shall be provided in the automatic sprinkler system riser rooms and fire pump rooms. Emergency lighting shall

be provided in the automatic sprinkler system riser rooms and fire pump rooms in accordance with Sections 1008.3.4 and 1008.3.5.

901.4.6.5 Storage prohibited. Storage within automatic sprinkler system riser rooms and fire pump rooms is prohibited. An approved “Storage Prohibited” sign is required to be mounted on a wall of the room.

Section 901.6.3 is deleted in its entirety and replaced with the following:

901.6.3 Records. Records of all system inspections, tests and maintenance required by the referenced standards shall be maintained shall be maintained on the premises for a minimum of three years and the servicing contractor shall submit inspection, testing, and maintenance reports online to the approved 3rd party reporting service within 30 days of the date of service. Failure to submit reports within the 30-day period will result in penalties identified in Section 110.

The fire department will maintain a webpage on the City of Avondale’s Official Website identifying the name of the 3rd party reporting service, the reporting service’s contact information, and the types of fire protection systems that must be reported.

Section 901.7 is deleted in its entirety and replaced with the following:

901.7 Systems out of service. Where a required fire protection system is out of service, the fire department and the fire marshal shall be notified immediately and, where required by the fire marshal, the building shall be either evacuated or and approved fire watch shall be provided for all occupants left unprotected by the shutdown until the fire protection system has been returned to service.

Where utilized, fire watches shall be provided with not less than one approved means for notification of the fire department and their only duty shall be to perform constant patrols of the protected premises and keep watch for fires. An employee who works at the building in which a fire watch is required may serve as the fire watch. The fire watch shall be provided with printed instructions in compliance with A.R.S. § 9-808, as amended.

901.7.1 Impairment coordinator. The building owner shall assign an impairment coordinator to comply with the requirements of this section. In the absence of a specific designee, the owner shall be considered to be the impairment coordinator.

901.7.2 Tag required. A tag shall be used to indicate that a system, or portion thereof, has been removed from service.

901.7.3 Placement of tag. The tag shall be posted at each fire department connection, system control valve, fire alarm control unit, fire alarm annunciator and fire command center, indicating which system, or part thereof, has been removed from service. The fire marshal shall specify where the tag is to be placed.

901.7.4 Preplanned impairment programs. Preplanned impairments shall be authorized by the impairment coordinator. Before authorization is given, a designated individual shall be responsible for verifying that all of the following procedures have been implemented:

1. The extent and expected duration of the impairment have been determined.
2. The areas or buildings involved have been inspected and the increased risks determined.
3. Recommendations have been submitted to management or the building owner/manager.
4. The fire department has been notified.
5. The insurance carrier, the alarm company, the building owner/manager and other authorities having jurisdiction have been notified,
6. The supervisors in the areas to be affected have been notified,
7. A tag impairment system has been implemented, and
8. Necessary tools and materials have been assembled on the impairment site.

901.7.5 Emergency impairments. Where unplanned impairments occur, appropriate emergency action shall be

taken to minimize potential injury and damage. The impairment coordinator shall implement the steps outlined in Section 901.7.4.

901.7.6 Restoring systems to service. Where impaired equipment is restored to normal working order, the impairment coordinator shall verify that all of the following procedures have been implemented:

1. Necessary inspections and tests have been conducted to verify that affected systems are operational.
2. Supervisors have been advised that protection is restored.
3. The fire department has been advised that protection is restored.
4. The building owner/manager, insurance carrier, alarm company and other involved parties have been advised that protection is restored.
5. The impairment tag(s) has/have been removed.

Sections 903.2 through 903.2.12 are deleted in its entirety and replaced with the following:

903.2 Where required. Approved NFPA Standard 13 automatic sprinkler systems in new buildings and structures shall be provided in the locations described in Sections 903.2.1 through 903.2.14.

Exceptions:

1. Detached gazebos, temporary tents and ramadas for residential and public use,
2. Independent building of any construction or occupancy other than Group E or H of 1,000 square feet or less,
3. Detached non-combustible carports or parking canopies regardless of size, or detached noncombustible canopies used exclusively for automotive motor fuel dispensing station not exceeding 5,000 sq. ft,
4. Factory built buildings utilized as temporary office buildings like real estate leasing offices and construction offices,
5. Spaces or areas in telecommunications buildings used exclusively for telecommunications equipment, associated electrical power distribution equipment, batteries and standby engines, provided those spaces or areas are equipped throughout with an automatic smoke detection system in accordance with Section 907.2 and are separated from the remainder of the building by not less than 1-hour fire barriers constructed in accordance with Section 707 of the International Building Code or not less than 2-hour horizontal assemblies constructed in accordance with Section 711 of the International Building Code, or both.
6. Special use non-combustible structures as approved by the Fire Marshal.

903.2.1 Group A. A NFPA Standard 13 automatic sprinkler system shall be provided throughout all buildings containing a Group A occupancy.

903.2.2 Group B. A NFPA Standard 13 automatic sprinkler system shall be provided throughout all buildings containing a Group B occupancy.

903.2.3 Group E. A NFPA Standard 13 automatic sprinkler system shall be provided for Group E occupancies as follows:

1. Throughout all Group E fire areas greater than 12,000 square feet (1115 m²) in area.
2. Throughout every portion of educational buildings below the lowest level of exit discharge serving that portion of the building.

Exception: An automatic sprinkler system is not required in any area below the lowest level of exit discharge serving that area where every classroom throughout the building has at least one exterior exit door at ground level.

903.2.4 Group F. A NFPA Standard 13 automatic sprinkler system shall be provided throughout all buildings containing a Group F occupancy.

903.2.5 Group H. Automatic sprinkler systems shall be provided in high-hazard occupancies as required in Sections 903.2.5.1 through 903.2.5.2.

903.2.5.1 General. A NFPA Standard 13 automatic sprinkler system shall be installed in Group H occupancies.

903.2.5.2 Group H-5 occupancies. A NFPA Standard 13 automatic sprinkler system shall be installed throughout buildings containing Group H-5 occupancies. The design of the sprinkler system shall not be less than that required under the International Building Code for the occupancy hazard classifications in accordance with Table 903.2.5.2.

Where the design area of the sprinkler system consists of a corridor protected by one row of sprinklers, the maximum number of sprinklers required to be calculated is 13.

**TABLE 903.2.5.2
GROUP H-5 SPRINKLER DESIGN CRITERIA**

LOCATION	OCCUPANCY HAZARD CLASSIFICATION
Fabrication areas	Ordinary Hazard Group 2
Service corridors	Ordinary Hazard Group 2
Storage rooms without dispensing	Ordinary Hazard Group 2
Storage rooms with dispensing	Extra Hazard Group 2
Corridors	Ordinary Hazard Group 2

903.2.6 Group I. A NFPA Standard 13 automatic sprinkler system shall be provided throughout all buildings containing a Group I occupancy.

903.2.7 Group M. A NFPA Standard 13 automatic sprinkler system shall be provided throughout all buildings containing a Group M occupancy.

903.2.8 High-piled storage. An automatic sprinkler system shall be provided as required in Chapter 32 in all buildings of Group M where storage of merchandise is in high-piled or rack storage arrays.

903.2.8 Group R. A NFPA Standard 13 automatic sprinkler system shall be provided throughout buildings with a Group R fire area.

903.2.8.1 Group R-3. An automatic sprinkler system installed in accordance with NFPA Standard 13-D shall be permitted in Group R-3 occupancies.

903.2.8.2 Group R-4, Condition 1. An automatic sprinkler system installed in accordance with NFPA Standard 13-R shall be permitted in Group R-4, Condition 1 occupancies.

903.2.8.3 Group R-4, Condition 2. An automatic sprinkler system installed in accordance with NFPA Standard 13-R shall be permitted in Group R-4, Condition 2 occupancies.

903.2.8.4 Care Facilities. An automatic sprinkler system installed in accordance with NFPA Standard 13-D shall be permitted in care facilities with 5 or fewer individuals in a single-family dwelling.

903.2.8.5 Developmental Disability Residential Facilities. The requirement to install an automatic fire sprinkler system shall comply with A.R.S. § 36-582, as amended.

903.2.13 Structures exceeding 5,000 square feet. Structures with a Group R-3 or R-4 fire area, which exceed 5,000 square feet in area, under roof, shall be provided with an automatic fire sprinkler system

meeting the requirements of NFPA 13.

903.2.9 Group S. A NFPA Standard 13 automatic sprinkler system shall be provided throughout all buildings containing a Group S occupancy.

903.2.10 Group U. A NFPA Standard 13 automatic sprinkler system shall be provided throughout buildings exceeding 5,000 square feet, under roof, and contain a Group U occupancy.

903.2.11 Non-residential shade canopies. A NFPA Standard 13 automatic sprinkler system shall be provided under non-residential shade canopies.

Exceptions:

1. Where a slatted, lattice or louvered canopy roof system is more than 50 percent open to the sky,
2. Where shade membrane fabric is used to cover garden, greenhouse, landscaping or plant nursery products or materials, not exceeding 5,000 square feet (372 m²),
3. Shade canopies that are made of noncombustible material with a flame spread index no greater than 25 when tested in accordance with ASME E84, not exceeding 1,000 square feet (93.2 m²),
4. Patio covers that do not exceed 400 square feet (37.2 m²) in area

903.2.12 Other required suppression systems. In addition to the requirements of Section 903.2, the provisions indicated in Table 903.2.12 require the installation of a fire suppression system for certain buildings and areas.

903.2.13 Residential Code. Structures within the scope of the International Residential Code which exceed 5,000 square feet in area, under roof, shall be provided with an automatic fire sprinkler system meeting the requirements of NFPA 13.

903.2.14 During construction. Automatic sprinkler systems required during construction, alteration and demolition operations shall be provided in accordance with Section 3314.

Table 903.2.12
ADDITIONAL REQUIRED FIRE SUPPRESSION SYSTEMS

SECTION	SUBJECT
914.2.1	Covered and open mall buildings
914.3.1	High-rise buildings
914.4.1	Atriums
914.5.1	Underground structures
914.6.1	Stages
914.7.1	Special amusement buildings
914.8.2	Airport traffic control towers
914.8.3, 914.8.6	Aircraft hangars
914.9	Flammable finishes
914.10	Drying rooms
914.11.1	Ambulatory care facilities
1029.6.2.3	Smoke-protected assembly seating
1103.5.1	Existing Group A occupancies
1103.5.2	Pyroxylin plastic storage in existing buildings
1103.5.3	Existing Group I-2 occupancies
1103.5.4	Existing Group I-2, Condition 2 occupancies
1103.5.4	Pyroxylin plastics
2108.2	Dry cleaning plants
2108.3	Dry cleaning machines
2309.3.2.6.2	Hydrogen motor fuel-dispensing area canopies
2404.2	Spray finishing in Group A, E, I or R
2404.4	Spray booths and spray rooms
2405.2	Dip-tank rooms in Group A, I or R
2405.4.1	Dip tanks
2405.9.4	Hardening and tempering tanks
2703.10	HPM facilities
2703.10.1.1	HPM work station exhaust
2703.10.2	HPM gas cabinets and exhausted enclosures
2703.10.3	HPM exit access corridor
2703.10.4	HPM exhaust ducts
2703.10.4.1	HPM noncombustible ducts
2703.10.4.2	HPM combustible ducts
2807.3	Lumber production conveyor enclosures
2808.7	Recycling facility conveyor enclosures
3006.1	Class A and B ovens
3006.2	Class C and D ovens
Table 3206.2	Storage fire protection
3206.4	Storage
3704.5	Storage of more than 1,000 cubic feet of loose combustible fibers
5003.8.4.1	Gas rooms
5003.8.5.3	Exhausted enclosures
5004.5	Indoor storage of hazardous materials

(continued)

Table 903.2.12 – continued
 ADDITIONAL REQUIRED FIRE SUPPRESSION SYSTEMS

SECTION	SUBJECT
5005.1.8	Indoor dispensing of hazardous materials
5104.4.1	Aerosol product warehouses
5106.3.2	Aerosol display and merchandising areas
5306.2.1	Exterior medical gas storage room
5306.2.2	Interior medical gas storage room
5306.2.3	Medical gas storage cabinet
5606.5.2.1	Storage of smokeless propellant
5606.5.2.3	Storage of small arms primers
5704.3.7.5.1	Flammable and combustible liquid storage rooms
5704.3.8.4	Flammable and combustible liquid storage warehouses
5705.3.7.3	Flammable and combustible liquid Group H-2 or H-3 areas
6004.1.2	Gas cabinets for highly toxic and toxic gas
6004.1.3	Exhausted enclosures for highly toxic and toxic gas
6004.2.2.6	Gas rooms for highly toxic and toxic gas
6004.3.3	Outdoor storage for highly toxic and toxic gas
6504.1.1	Pyroxylin plastic storage cabinets
6504.1.3	Pyroxylin plastic storage vaults
6504.2	Pyroxylin plastic storage and manufacturing

For SI: 1 cubic foot = 0.023 m³.

Sections 903.3.1.2 through 903.3.1.2.3 are deleted in its entirety.

Section 903.3.5 is deleted in its entirety and replaced with the following:

903.3.5 Water supplies. Water supplies for automatic sprinkler systems shall comply with Section 511.4.

Section 903.4.3 is deleted in its entirety and replaced with the following:

903.4.3 Floor control valves. Approved supervised indicating control valves/water flow switches shall be provided at the following locations. *Control valves shall be operable from ground/floor level.*

1. Multi-story buildings shall be zoned separately by floor.
2. Multi-story multi-family residential buildings that are separated by a breezeway or fire rated assembly can be zoned separately by building section if approved in advance by the fire marshal. The required section control valves shall be in the main sprinkler control valve room.
3. Smoke zones shall be zoned separately. The operation of one sprinkler will actuate the alarm system and the appropriate smoke control equipment.
4. Hazardous areas such as spray booths, flammable liquid storage rooms, hazardous materials control areas, etc. shall be zoned separately. The required zone control valves shall be in an accessible area outside the spray booth, storage room, control area, or in the main sprinkler control valve room.

5. Special systems such as pre-action systems shall be zoned separately.
6. Computer rooms shall be zoned separately. The required zone control valves shall be in an accessible area outside the computer room, or in the main sprinkler control valve room.
7. Subfloor areas shall be zoned separately. The required zone control valves shall be in an accessible area outside the subfloor area, or in the main sprinkler control valve room.
8. Elevator hoist ways shall be zoned separately. The required zone control valve shall be in an accessible area outside the elevator hoist way, or in the main sprinkler control valve room.
9. In racks sprinklers shall be zoned separately.
10. Multi-tenant buildings with different addresses shall be zoned by address and provide the correct address information to the fire department alarm center.
11. As required by the fire marshal.

Section 903.7 is added to read as follows:

903.7 Replacement of missing hydraulic calculation plates. Missing hydraulic calculation plates shall be replaced in accordance with the requirements of Section 901.6.

Exception: With the exception schools, state and county buildings, missing hydraulic calculation plates on sprinkler system risers protecting only light hazard occupancies shall not be replaced until the fire sprinkler system is altered, a tenant improvement occurs, or the system owner voluntarily requests its replacement.

Section 907.1 is deleted in its entirety and replaced with the following:

907.1 General. This section covers the application, installation, performance and maintenance of fire alarm systems and their components in new and existing buildings and structures. The requirements of Section 907.2 are applicable to new buildings and structures. The requirements of Section 907.9 are applicable to existing buildings and structures.

907.1.1 Construction documents. Construction documents for fire alarm systems shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of this code, the International Building Code and relevant laws, ordinances, rules and regulations, as determined by the fire marshal.

907.1.2 Fire alarm shop drawings. Shop drawings for fire alarm systems shall be prepared in accordance with NFPA 72 and submitted for review and approval prior to system installation.

907.1.3 Equipment. Systems and components shall be listed and approved for the purpose for which they are installed.

907.1.3.1 Addressable. Fire control panels shall be addressable unless approved by the fire marshal.

907.1.3.2 Combination system prohibition. Use if a combination fire alarm system is prohibited.

Exception: Interconnection with a building maintenance system listed for compatibility and

approved in advance by the fire marshal.

907.1.3.3 Individual building. One addressable fire alarm control unit shall be installed in each building containing a fire sprinkler or fire alarm system. The use of separate fire alarm control panels in tenant spaces is prohibited. The fire alarm control unit shall be capable of handling the total number of devices expected at full tenant occupancy to avoid fire alarm control unit upgrades for each tenant.

907.1.3.4 Fire alarm control unit location. Fire alarm and sprinkler monitoring system control units shall be in a riser room or approved location.

Section 907.2.10 is deleted and replaced with the following:

907.2.10 Group R-4. Fire alarm systems and smoke alarms shall be installed in Group R-4 occupancies as required in Sections 907.2.10.1 through 907.2.10.3.

907.2.10.1 Manual fire alarm system. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group R-4 occupancies.

Exceptions:

1. A manual fire alarm system is not required in buildings not more than two stories in height where all individual *sleeping units* and contiguous attic and crawl spaces to those units are separated from each other and public or common areas by not less than 1-hour *fire partitions* and each individual *sleeping unit* has an *exit* directly to a *public way*, *egress court* or yard.
2. Manual fire alarm boxes are not required throughout the building where all of the following conditions are met:
 - 2.1. The building is equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2.
 - 2.2. The notification appliances will activate upon sprinkler water flow.
 - 2.3. Not fewer than one manual fire alarm box is installed at an approved location.
3. Manual fire alarm boxes in resident or patient sleeping areas shall not be required at *exits* where located at all nurses' control stations or other constantly attended staff locations, provided such stations are visible and continuously accessible and that the distances of travel required in Section 907.4.2.1 are not exceeded.

907.2.10.2 Automatic smoke detection system. An automatic smoke detection system that activates the occupant notification system in accordance with Section 907.5 shall be installed in *corridors*, waiting areas open to *corridors* and *habitable spaces* other than *sleeping units* and kitchens.

Exceptions:

1. Smoke detection in *habitable spaces* is not required where the facility is equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1.
2. An automatic smoke detection system is not required in buildings that do not have interior *corridors* serving *sleeping units* and where each *sleeping unit* has a *means of egress* door opening directly to an *exit* or to an exterior *exit access* that leads directly to an exit.

907.2.10.3 Smoke alarms. Single- and multiple-station smoke alarms shall be installed in accordance with Section 907.2.11.

Section 907.2.11 is deleted and replaced with the following:

907.2.11 Single- and multiple-station smoke alarms. *Listed* single- and multiple-station smoke alarms complying with UL 217 shall be installed in accordance with Sections 907.2.11.1 through 907.2.11.7 and NFPA 72.

907.2.11.1 Group R-1. Single- or multiple-station smoke alarms shall be installed in all of the following locations in Group R-1:

1. In sleeping areas.
2. In every room in the path of the *means of egress* from the sleeping area to the door leading from the *sleeping unit*.
3. In each story within the *sleeping unit*, including *basements*. For *sleeping units* with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.

907.2.11.2 Groups R-2, R-3, R-4 and I-1. Single or multiple-station smoke alarms shall be installed and maintained in Groups R-2, R-3, R-4 and I-1 regardless of *occupant load* at all of the following locations:

1. On the ceiling or wall outside of each separate sleeping area in the immediate vicinity of bedrooms.
2. In each room used for sleeping purposes.
3. In each story within a *dwelling unit*, including *basements* but not including crawl spaces and uninhabitable attics. In *dwelling units* with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.

907.2.11.3 Installation near cooking appliances. Smoke alarms shall not be installed in the following locations unless this would prevent placement of a smoke alarm in a location required by Section 907.2.11.1 or 907.2.11.2:

1. Ionization smoke alarms shall not be installed less than 20 feet (6096 mm) horizontally from a permanently installed cooking appliance.
2. Ionization smoke alarms with an alarm-silencing switch shall not be installed less than 10 feet (3048 mm) horizontally from a permanently installed cooking appliance.
3. Photoelectric smoke alarms shall not be installed less than 6 feet (1829 mm) horizontally from a permanently installed cooking appliance.

907.2.11.4 Installation near bathrooms. Smoke alarms shall be installed not less than 3 feet (914 mm) horizontally from the door or opening of a bathroom that contains a bathtub or shower unless this would prevent placement of a smoke alarm required by Section 907.2.11.1 or 907.2.11.2.

907.2.11.5 Interconnection. Where more than one smoke alarm is required to be installed within an individual *dwelling unit* or *sleeping unit* in Group R or I-1 occupancies, the smoke alarms shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms in the

individual unit. Physical interconnection of smoke alarms shall not be required where listed wireless alarms are installed and all alarms sound upon activation of one alarm. The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed.

907.2.11.6 Power source. In new construction, required smoke alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source and shall be equipped with a battery backup. Smoke alarms with integral strobes that are not equipped with battery back-up shall be connected to an emergency electrical system in accordance with Section 604. Smoke alarms shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than as required for overcurrent protection.

Exception: Smoke alarms are not required to be equipped with battery backup where they are connected to an emergency electrical system that complies with Section 604.

907.2.11.7 Smoke detection system. Smoke detectors listed in accordance with UL 268 and provided as part of the building fire alarm system shall be an acceptable alternative to single- and multiple-station *smoke alarms* and shall comply with the following:

1. The fire alarm system shall comply with all applicable requirements in Section 907.
2. Activation of a smoke detector in a *dwelling unit* or *sleeping unit* shall initiate alarm notification in the *dwelling unit* or *sleeping unit* in accordance with Section 907.5.2.
3. Activation of a smoke detector in a *dwelling unit* or *sleeping unit* shall not activate alarm notification appliances outside of the *dwelling unit* or *sleeping unit*, provided that a supervisory signal is generated and monitored in accordance with Section 907.6.6.

Section 907.2.12 is deleted and replaced with the following:

907.2.12 Special amusement buildings. An automatic smoke detection system shall be provided in special amusement buildings in accordance with Sections 907.2.12.1 through 907.2.12.3.

907.2.12.1 Alarm. Activation of any single smoke detector, the *automatic sprinkler system* or any other automatic fire detection device shall immediately activate an audible and visible alarm at the building at a constantly attended location from which emergency action can be initiated, including the capability of manual initiation of requirements in Section 907.2.12.2.

907.2.12.2 System response. The activation of two or more smoke detectors, a single smoke detector equipped with an alarm verification feature, the *automatic sprinkler system* or other *approved* fire detection device shall automatically do all of the following:

1. Cause illumination of the *means of egress* with light of not less than 1-foot candle (11 lux) at the walking surface level.
2. Stop any conflicting or confusing sounds and visual distractions.
3. Activate an *approved* directional *exit marking* that will become apparent in an emergency.
4. Activate a prerecorded message, audible throughout the special amusement building, instructing patrons to proceed to the nearest exit. Alarm signals used in conjunction with the prerecorded message shall produce a sound that is distinctive from other sounds used during normal operation.

907.2.12.3 Emergency voice/alarm communication system. An emergency voice/alarm communication system, which is also allowed to serve as a public address system, shall be installed in accordance with Section 907.5.2.2 and be audible throughout the entire special amusement building.

Section 907.2.13 is deleted and replaced with the following:

907.2.13 High-rise buildings. High-rise buildings shall be provided with an automatic smoke detection system in accordance with Section 907.2.13.1, a fire department communication system in accordance with Section 907.2.13.2 and an emergency voice/alarm communication system in accordance with Section 907.5.2.2.

Exceptions:

1. Airport traffic control towers in accordance with Section 907.2.22 of this code and Section 412 of the *International Building Code*.
2. Open parking garages in accordance with Section 406.5 of the *International Building Code*.
3. Buildings with an occupancy in Group A-5 in accordance with Section 303.1 of the *International Building Code*.
4. Low-hazard special occupancies in accordance with Section 503.1.1 of the *International Building Code*.
5. Buildings with an occupancy in Group H-1, H-2 or H-3 in accordance with Section 415 of the *International Building Code*.
6. In Group I-1 and I-2 occupancies, the alarm shall sound at a constantly attended location and occupant notification shall be broadcast by the emergency voice/alarm communication system.

907.2.13.1 Automatic smoke detection. Automatic smoke detection in high-rise buildings shall be in accordance with Sections 907.2.13.1.1 and 907.2.13.1.2.

907.2.13.1.1 Area smoke detection. Area smoke detectors shall be provided in accordance with this section. Smoke detectors shall be connected to an automatic fire alarm system. The activation of any detector required by this section shall activate the emergency voice/alarm communication system in accordance with Section 907.5.2.2. In addition to smoke detectors required by Sections 907.2.1 through 907.2.10, smoke detectors shall be located as follows:

1. In each mechanical equipment, electrical, transformer, telephone equipment or similar room that is not provided with sprinkler protection.
2. In each elevator machine room, machinery space, control room and control space and in elevator lobbies.

[M] 907.2.13.1.2 Duct smoke detection. Duct smoke detectors complying with Section 907.3.1 shall be located as follows:

1. In the main return air and exhaust air plenum of each air-conditioning system having a capacity greater than 2,000 cubic feet per minute (cfm) (0.94 m³/s). Such detectors shall be located in a serviceable area downstream of the last duct inlet.

2. At each connection to a vertical duct or riser serving two or more stories from a return air duct or plenum of an air-conditioning system. In Group R-1 and R-2 occupancies, a smoke detector is allowed to be used in each return air riser carrying not more than 5,000 cfm (2.4 m³/s) and serving not more than 10 air-inlet openings.

907.2.13.2 Fire department communication system. Where a wired communication system is *approved* in lieu of an emergency responder radio coverage system in accordance with Section 510, the wired fire department communication system shall be designed and installed in accordance with NFPA 72 and shall operate between a *fire command center* complying with Section 508, elevators, elevator lobbies, emergency and standby power rooms, fire pump rooms, areas of refuge and inside *interior exit stairways*. The fire department communication device shall be provided at each floor level within the *interior exit stairway*.

907.2.13.3 Multiple-channel voice evacuation. In buildings with an occupied floor more than 120 feet above the lowest level of fire department vehicle access, voice evacuation systems for high-rise buildings shall be multiple-channel systems.

Section 907.2.14 is deleted and replaced with the following:

907.2.14 Atriums connecting more than two stories. A fire alarm system shall be installed in occupancies with an atrium that connects more than two stories, with smoke detection in locations required by a rational analysis in Section 909.4 and in accordance with the system operation requirements in Section 909.17. The system shall be activated in accordance with Section 907.5. Such occupancies in Group A, E or M shall be provided with an emergency voice/alarm communication system complying with the requirements of Section 907.5.2.2.

Section 907.2.15 is deleted and replaced with the following:

907.2.15 High-piled combustible storage areas. An automatic smoke detection system shall be installed throughout *high-piled combustible storage areas* where required by Section 3206.5.

Section 907.2.16 is deleted and replaced with the following:

907.2.16 Aerosol storage uses. Aerosol storage rooms and general-purpose warehouses containing aerosols shall be provided with an *approved* manual fire alarm system where required by this code.

Section 907.2.17 is deleted and replaced with the following:

907.2.17 Lumber, wood structural panel and veneer mills. Lumber, wood structural panel and veneer mills shall be provided with a manual fire alarm system.

Section 907.2.18 is deleted and replaced with the following:

907.2.18 Underground buildings with smoke control systems. Where a smoke control system is installed in an underground building in accordance with the *International Building Code*, automatic smoke detectors shall be provided in accordance with Section 907.2.18.1.

907.2.18.1 Smoke detectors. Not fewer than one smoke detector *listed* for the intended purpose shall be installed in all of the following areas:

1. Mechanical equipment, electrical, transformer, telephone equipment, elevator machine or similar

rooms.

2. Elevator lobbies.

3. The main return and exhaust air plenum of each air-conditioning system serving more than one story and located in a serviceable area downstream of the last duct inlet.

4. Each connection to a vertical duct or riser serving two or more floors from return air ducts or plenums of heating, ventilating and air-conditioning systems, except that in Group R occupancies, a *listed* smoke detector is allowed to be used in each return air riser carrying not more than 5,000 cfm (2.4 m³/s) and serving not more than 10 air inlet openings.

907.2.18.2 Alarm required. Activation of the smoke control system shall activate an audible alarm at a constantly attended location.

Section 907.2.19 is deleted and replaced with the following:

907.2.19 Deep underground buildings. Where the lowest level of a structure is more than 60 feet (18 288 mm) below the finished floor of the lowest *level of exit discharge*, the structure shall be equipped throughout with a manual fire alarm system, including an emergency voice/ alarm communication system installed in accordance with Section 907.5.2.2.

Section 907.2.20 is deleted and replaced with the following:

907.2.20 Covered and open mall buildings. Where the total floor area exceeds 50,000 square feet (4645 m²) within either a covered mall building or within the perimeter line of an open mall building, an emergency voice/ alarm communication system shall be provided. Emergency voice/alarm communication systems serving a mall, required or otherwise, shall be accessible to the fire department. The system shall be provided in accordance with Section 907.5.2.2.

Section 907.2.21 is deleted and replaced with the following:

907.2.21 Residential aircraft hangars. Not fewer than one single-station smoke alarm shall be installed within a residential aircraft hangar as defined in Chapter 2 of the *International Building Code* and shall be interconnected into the residential smoke alarm or other sounding device to provide an alarm that will be audible in all sleeping areas of the *dwelling*.

Section 907.2.22 is deleted and replaced with the following:

907.2.22 Airport traffic control towers. An automatic smoke detection system that activates the occupant notification system in accordance with Section 907.5 shall be provided in airport control towers in accordance with Sections 907.2.22.1 and 907.2.22.2.

Exception: Audible appliances shall not be installed within the control tower cab.

907.2.22.1 Airport traffic control towers with multiple exits and automatic sprinklers. Airport traffic control towers with multiple *exits* and equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 shall be provided with smoke detectors in all of the following locations:

1. Airport traffic control cab.

2. Electrical and mechanical equipment rooms.
3. Airport terminal radar and electronics rooms.
4. Outside each opening into *interior exit stairways*.
5. Along the single *means of egress* permitted from observation levels.
6. Outside each opening into the single *means of egress* permitted from observation levels.

907.2.22.2 Other airport traffic control towers. Air- port traffic control towers with a single *exit* or where sprinklers are not installed throughout shall be provided with smoke detectors in all of the following locations:

1. Airport traffic control cab.
2. Electrical and mechanical equipment rooms.
3. Airport terminal radar and electronics rooms.
4. Office spaces incidental to the tower operation.
5. Lounges for employees, including sanitary facilities.
6. *Means of egress*.
7. Accessible utility shafts.

Section 907.2.23 is deleted and replaced with the following:

907.2.23 Battery rooms. An automatic smoke detection system shall be installed in areas containing stationary storage battery systems with a liquid capacity of more than 50 gallons (189 L).

Section 907.2.24 is added and reads as follows:

907.2.24 Capacitor energy storage systems. An automatic smoke detection system shall be installed in areas containing capacitor energy storage systems as required by Section 1206.3.

Section 912.2.1 is deleted and replaced with the following:

912.2.1 Visible location. Fire department connections shall be located on the street side of buildings, fully visible and recognizable from the street or nearest point of fire department vehicle access or as otherwise approved by the fire marshal. The fire department connection shall be indicated by an approved sign mounted on the street front or on the side of the building. Such sign shall have the letters "FDC" not less than 6 inches (152 mm) high and words in letters not less than 2 inches (51 mm) high or an arrow to indicate the location. Such signs shall be subject to the approval of the fire marshal.

Section 912.6 is deleted and replaced with the following:

912.6 Backflow protection. The potable water supply to automatic sprinkler and standpipe systems shall be protected against backflow in accordance with the City of Avondale Engineering Division requirements.

Section 1103.5 is deleted in its entirety and replaced with the following:

1103.5 Sprinkler systems. An automatic sprinkler system shall be provided in existing buildings in accordance with Sections 1103.5.1 through 1103.5.7.

1103.5.1 Group A-2. Where alcoholic beverages are consumed in a Group A-2 occupancy having an occupant load of 300 or more, the fire area containing the Group A-2 occupancy shall be equipped with an automatic sprinkler system shall be installed in accordance with Section 903.3.1.1.

1103.5.2 Group I-2. In Group I-2, an automatic sprinkler system shall be provided in accordance with Section 1105.9.

1103.5.3 Group I-2 Condition 2. In addition to the requirements of Section 1103.5.2, existing buildings of Group I-2 Condition 2 occupancy shall be equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1. The automatic sprinkler system shall be installed within two years of the Notice of Violation date.

1103.5.4 Pyroxylin plastics. An automatic sprinkler system shall be provided throughout existing buildings where cellulose nitrate film or pyroxylin plastics are manufactured, stored or handled in quantities exceeding 100 pounds (45 kg). Vaults located within buildings for the storage of raw pyroxylin shall be protected with an approved automatic sprinkler system capable of discharging 1.66 gallons per minute per square foot (68 L/min/m²) over the area of the vault.

1103.5.5 Retrofit in Single-family Dwellings, Group R-3, or R-4 occupancies. An automatic fire sprinkler system shall be provided throughout a single-family dwelling, Group R-3, or R-4 occupancy when one or more additions increase the new total building area to exceed 5,000 square feet (464 m²). The calculated area shall include all livable space and the area of any attached garage, carports, aircraft hangar or basement.

1103.5.6 Building additions. Building additions in existing occupancies shall be protected by an automatic fire sprinkler when:

1. Building additions equal 50 percent or more of the existing building floor area, or exceed 10,000 square feet (929 m²), whichever is less.
2. Two or more building permits related to increased square footage are issued over any three consecutive years where:
 - a. The aggregate of the additions exceeds 50 percent of the square footage of the building as of July 1, 2017.
 - b. The new total area of the building is greater than 10,000 square feet (929 m²).
3. Building additions are required to be protected in accordance with International Building Code or International Residential Code.

An automatic fire sprinkler system shall be installed when 50 percent or more of the roof assembly is replaced or repaired due to fire damage or structure failure, or when the removal of existing fire-rated assemblies results in an increase of the original basic allowable area.

1103.5.7 Change of use. An automatic sprinkler system shall be installed throughout when a building, regardless

of the building area, undergoes a change of occupancy to a higher hazard level as defined by Table 1103.5.7.

TABLE 1103.5.7 HAZARD LEVEL		
HAZARD LEVEL	1997 UBC OCCUPANCY TYPE	2102 IFC OCCUPANCY TYPE
1 (highest)	A, H, I, R-1, R-2	A, B-AGCF ¹ , H, I, R-1, R-2, R-4
2	F-1, S-1, S-5	F-1, S-1
3	E, F-2, S-2, S-3, S-4	E, F-2, S-2
4 (lowest)	B, M, R-3, U	B, M, R-3, U

1. Business – Ambulatory Group Care Facility

Section 1103.11 is added to read as follows:

1103.11 Ceiling tiles. Ceiling tiles shall be maintained in place.

Chapter 12 is deleted in its entirety and replaced with the following:

Title: Chapter 12: ENERGY SYSTEMS

SECTION 1201 GENERAL

Section 1201.1 Scope. The provisions of this chapter shall apply to the installation, operation and maintenance of energy systems used for generating or storing energy. It shall not apply to equipment associated with the generation, control, transformation, transmission, or distribution of energy installations that is under the exclusive control of an electric utility or lawfully designated agency.

Section 1201.2 Electrical wiring and equipment. Electrical wiring and equipment used in connection with energy systems shall be installed and maintained in accordance with Chapter 12 and NFPA 70.

Section 1201.3 Mixed system installation. Where approved, the aggregate kWh energy in a fire area shall not exceed the maximum quantity specified for any of the energy systems in this chapter. Where required by the fire marshal, a hazard mitigation analysis shall be provided and approved in accordance with Section 104.7.2 to evaluate any potential adverse interaction between the various energy systems and technologies.

SECTION 1202 DEFINITIONS

1202.1 Definitions. The following terms are defined in Chapter 2:

BATTERY SYSTEM, STATIONARY STORAGE.

BATTERY TYPES.

LEAD-ACID BATTERY.

CAPACITOR ARRAY.

CAPACITOR ENERGY STORAGE SYSTEM.

CRITICAL CIRCUIT.

EMERGENCY POWER SYSTEM.

ENERGY MANAGEMENT SYSTEM.

FUEL CELL POWER SYSTEM, STATIONARY.

STANDBY POWER SYSTEM.

STATIONARY BATTERY ARRAY.

STATIONARY FUEL CELL POWER SYSTEM.

SECTION 1203 EMERGENCY AND STANDBY POWER SYSTEMS

1203.1 General. Emergency power systems and standby power systems required by this code or the International Building Code shall comply with Sections 1203.1.1 through 1203.1.9.

1203.1.1 Stationary generators. Stationary emergency and standby power generators required by this code shall be listed in accordance with UL 2200. Associated flammable or combustible liquid tanks shall also comply with Chapters 50 and 57.

1203.1.2 Fuel line piping protection. Fuel lines supplying a generator set inside a high-rise building shall be separated from areas of the building other than the room the generator is located in by an approved method, or an assembly that has a fire-resistance rating of not less than 2 hours. Where the building is protected throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1, the required fire-resistance rating shall be reduced to 1 hour.

1203.1.3 Installation. Emergency power systems and standby power systems shall be installed in accordance with the International Building Code, NFPA 70, NFPA 110 and NFPA 111.

1203.1.4 Load transfer. Emergency power systems shall automatically provide secondary power within 10 seconds after primary power is lost, unless specified otherwise in this code. Standby power systems shall automatically provide secondary power within 60 seconds after primary power is lost, unless specified otherwise in this code.

1203.1.5 Load duration. Emergency power systems and standby power systems shall be designed to provide the required power for a minimum duration of 2 hours without being refueled or recharged, unless specified otherwise in this code.

1203.1.6 Uninterruptable power source. An uninterrupted source of power shall be provided for equipment where required by the manufacturer's instructions, the listing, this code or applicable referenced standards.

1203.1.7 Interchangeability. Emergency power systems shall be an acceptable alternative for installations that require standby power systems.

1203.1.8 Group I-2 occupancies. In Group I-2 occupancies located in flood hazard areas established in Section 1612.3 of the International Building Code and where new or replacement essential electrical systems are installed and where new essential electrical system generators are installed, the systems and generators shall be located and installed in accordance with ASCE 24. Where connections for hook up of temporary generators are provided, the connections shall be located at or above the elevation required in ASCE 24.

1203.1.9 Maintenance. Existing installations shall be maintained in accordance with the original approval and Section 1203.4.

1203.2 Where required. Emergency and standby power systems shall be provided where required by Sections 1203.2.1 through 1203.2.18.

1203.2.1 Ambulatory care facilities. Essential electrical systems for ambulatory care facilities shall be in accordance with Section 422.6 of the International Building Code.

1203.2.2 Elevators and platform lifts. Standby power shall be provided for elevators and platform lifts as required in Sections 606.2, 1009.4.1, and 1009.5.

1203.2.3 Emergency responder radio coverage systems. Standby power shall be provided for emergency responder radio coverage systems as required in Section 510.4.2.3. The standby power supply shall be capable of operating the emergency responder radio coverage system for a duration of not less than 24 hours.

1203.2.4 Emergency voice/alarm communication systems. Emergency power shall be provided for emergency voice/alarm communication systems as required in Section 907.5.2.2.5. The system shall be capable of powering

the required load for a duration of not less than 24 hours, as required in NFPA 72.

1203.2.5 Exit signs. Emergency power shall be provided for exit signs as required in Section 1013.6.3. The system shall be capable of powering the required load for a duration of not less than 90 minutes.

1203.2.6 Gas detection systems. Emergency power shall be provided for gas detection systems where required by Sections 1203.2.9 and 1203.2.16. Standby power shall be provided for gas detection systems where required by Section 916.5.

1203.2.7 Group I-2 occupancies. Essential electrical systems for Group I-2 occupancies shall be in accordance with Section 407.11 of the International Building Code.

1203.2.8 Group I-3 occupancies. Power-operated sliding doors or power-operated locks for swinging doors in Group I-3 occupancies shall be operable by a manual release mechanism at the door. Emergency power shall be provided for the doors and locks.

Exceptions:

1. Emergency power is not required in facilities where provisions for remote locking and unlocking of occupied rooms in Occupancy Condition 4 are not required as set forth in the International Building Code.
2. Emergency power is not required where remote mechanical operating releases are provided.

1203.2.9 Hazardous materials. Emergency and standby power shall be provided in occupancies with hazardous materials as required in the following sections:

1. Sections 5004.7 and 5005.1.5 for hazardous materials.
2. Sections 6004.2.2.8 and 6004.3.4.2 for highly toxic and toxic gases.
3. Section 6204.1.11 for organic peroxides.

1203.2.10 High-rise buildings. Standby power and emergency power shall be provided for high-rise buildings as required in Section 403 of the International Building Code and shall be in accordance with Section 1203.

1203.2.11 Horizontal sliding doors. Standby power shall be provided for horizontal sliding doors as required in Section 1010.1.4.3. The standby power supply shall have a capacity to operate not fewer than 50 closing cycles of the door.

1203.2.12 Hydrogen fuel gas rooms. Standby power shall be provided for hydrogen fuel gas rooms as required by Section 5808.7.

1203.2.13 Laboratory suites. Standby or emergency power shall be provided in accordance with Section 5004.7 where laboratory suites are located above the sixth story above grade plane or located in a story below grade plane.

1203.2.14 Means of egress illumination. Emergency power shall be provided for means of egress illumination in accordance with Sections 1008.3 and 1104.5.1.

1203.2.15 Membrane structures. Standby power shall be provided for auxiliary inflation systems in permanent membrane structures in accordance with Section 2702 of the International Building Code. Auxiliary inflation systems shall be provided in temporary air-supported and air inflated membrane structures in accordance with Section 3103.10.4.

1203.2.16 Semiconductor fabrication facilities. Emergency power shall be provided for semiconductor fabrication facilities as required in Section 2703.15.

1203.2.17 Smoke control systems. Standby power shall be provided for smoke control systems as required in Section 909.11.

1203.2.18 Underground buildings. Emergency and standby power shall be provided in underground buildings as required in Section 405 of the International Building Code and shall be in accordance with Section 1203.

1203.3 Critical circuits. Required critical circuits shall be protected using one of the following methods:

1. Cables used for survivability of required critical circuits shall be listed in accordance with UL 2196 and shall have a fire resistance rating of not less than 1 hour.
2. Electrical circuit protective systems shall have a fire resistance rating of not less than 1 hour. Electrical circuit protective systems shall be installed in accordance with their listing requirements.
3. Construction having a fire-resistance rating of not less than 1 hour.

1203.4 Maintenance. Emergency and standby power systems shall be maintained in accordance with NFPA 110 and NFPA 111 such that the system is capable of supplying service within the time specified for the type and duration required.

1203.4.1 Group I-2. In Group I-2 occupancies, emergency and standby power systems shall be maintained in accordance with NFPA 99.

1203.4.2 Schedule. Inspection, testing and maintenance of emergency and standby power systems shall be in accordance with an approved schedule established upon completion and approval of the system installation.

1203.4.3 Records. Records of the inspection, testing and maintenance of emergency and standby power systems shall include the date of service, name of the servicing technician, a summary of conditions noted and a detailed description of any conditions requiring correction and what corrective action was taken. Such records shall be maintained.

1203.4.4 Switch maintenance. Emergency and standby power system transfer switches shall be included in the inspection, testing and maintenance schedule required by Section 1203.4.2. Transfer switches shall be maintained free from accumulated dust and dirt. Inspection shall include examination of the transfer switch contacts for evidence of deterioration. When evidence of contact deterioration is detected, the contacts shall be replaced in accordance with the transfer switch manufacturer's instructions.

1203.5 Operational inspection and testing. Emergency power systems, including all appurtenant components, shall be inspected and tested under load in accordance with NFPA 110 and NFPA 111.

Exception: Where the emergency power system is used for standby power or peak load shaving, such use shall be recorded and shall be allowed to be substituted for scheduled testing of the generator set, provided that appropriate records are maintained.

1203.5.1 Group I-2. In Group I-2 occupancies, emergency and standby power systems shall be inspected and tested under load in accordance with NFPA 99.

1203.5.2 Transfer switch test. The test of the transfer switch shall consist of electrically operating the transfer switch from the normal position to the alternate position and then return to the normal position.

1203.6 Supervision of maintenance and testing. Routine maintenance, inspection and operational testing shall be overseen by a properly instructed individual.

SECTION 1204 SOLAR PHOTOVOLTAIC POWER SYSTEMS

1204.1 General. Solar photovoltaic systems shall be installed in accordance with Sections 1204.2 through 1204.5, and the International Building Code or International Residential Code. The electrical portion of solar PV systems shall be installed in accordance with NFPA 70.

1204.1.1 Permits. Permits shall be obtained for solar voltaic systems.

1204.1.2 Marking. Marking is required on interior and exterior direct-current (DC) conduit, enclosures, raceways, cable assemblies, junction boxes, combiner boxes and disconnects.

1204.1.2.1 Materials. The materials used for marking shall be reflective, weather resistant and suitable for the environment. Marking as required in Sections 1204.1.2 through 1204.1.6 shall have all letters capitalized with a minimum height of 3/8 inch (9.5 mm) white on red background.

1204.1.2.2 Marking content. The marking shall contain the words "WARNING: PHOTOVOLTAIC POWER SOURCE."

1204.1.2.3 Main service disconnect. The marking shall be placed adjacent to the main service disconnect in a location clearly visible from the location where the disconnect is operated.

1204.1.3 Location of marking. Marking shall be placed on interior and exterior DC conduit, raceways, enclosures and cable assemblies every 10 feet (3048 mm), within 1 foot (305 mm) of turns or bends and within 1 foot (305 mm) above and below penetrations of roof/ceiling assemblies, walls or barriers.

1204.2 Access and pathways. Roof access, pathways, and spacing requirements shall be provided in accordance with Sections 1204.2.1 through 1204.3.3. Pathways shall be over areas capable of supporting fire fighters accessing the roof. Pathways shall be in areas with minimal obstructions, such as vent pipes, conduit or mechanical equipment.

Residential structures shall be designed so that each photovoltaic array is not greater than 150 feet (45 720 mm) by 150 feet (45 720 mm) in either axis.

Exception:

1. Detached, nonhabitable Group U structures including, but not limited to, detached garages serving Group R-3 buildings, parking shade structures, carports, solar trellises and similar structures.
2. Roof access, pathways and spacing requirements need not be provided where the fire marshal has determined that rooftop operations will not be employed.

1204.2.1 Solar photovoltaic systems for Group R-3 buildings. Solar photovoltaic systems for Group R-3 buildings shall comply with Sections 1204.2.1.1 through 1204.2.1.5.

Exceptions:

1. The requirements shall not apply to structures designed and constructed in accordance with the International Residential Code.
2. These requirements shall not apply to roofs with slopes of 2 units vertical in 12 units horizontal or less.

1204.2.1.1 Roof access points. Roof access points shall be located in areas that do not require the placement of ground ladders over openings such as windows or doors and located at strong points of building construction in locations where the access point does not conflict with overhead obstructions such as tree limbs, wires, or signs.

1204.2.1.2 Residential buildings with hip roof layouts. Panels or modules installed on residential buildings with hip roof layouts shall be located in a manner that provides two 3-foot-wide (914 mm) clear access pathway from the eave to the ridge on each roof slope where panels or modules are located.

1204.2.1.3 Residential buildings with a single ridge. Panels/modules installed on residential buildings with a single ridge shall be in a manner that provides two 3-foot-wide (914 mm) access pathways from the eave to the ridge on each roof slope where panels/modules are located.

1204.2.1.4 Residential buildings with roof hips and valleys. Panels or modules installed on residential buildings with roof hips and valleys shall be located not closer than 18 inches (457 mm) to a hip or a valley where panels or modules are to be placed on both sides of a hip or valley. Where panels are to be located on only one side of a hip or valley that is of equal length, the panels shall be permitted to be placed directly adjacent to the hip or valley.

1204.2.1.5 Residential building smoke ventilation. Panels/modules installed on residential buildings shall be located no higher than 3 feet (914 mm) below the ridge.

1204.2.2 Emergency escape and rescue openings. Panels and modules installed on Group R-3 buildings shall not be placed on the portion of a roof that is below an emergency escape and rescue opening. A pathway of not less than 36 inches (914 mm) wide shall be provided to the emergency escape and rescue opening.

1204.3 Other than Group R-3 buildings. Access to systems for buildings, other than those containing Group R-3 occupancies, shall be provided in accordance with Sections 1204.3.1 through 1204.3.3.

Exception: Where it is determined by the fire marshal that the roof configuration is similar to that of a Group R-3 occupancy, the residential access and ventilation requirements in Sections 1204.2.1.1 through 1204.2.1.5 are a suitable alternative.

1204.3.1 Perimeter pathways. There shall be a minimum 6-foot-wide (1829 mm) clear perimeter around the edges of the roof.

Exception: Where either axis of the building is 250 feet (76 200 mm) or less, the clear perimeter around the edges of the roof shall be permitted to be reduced to a minimum width of 4 feet (1219 mm).

Interior pathways. Interior pathways shall be provided between array sections to meet the following requirements:

1. Pathways shall be provided at intervals not greater than 150 feet (45 720 mm) throughout the length and width of the roof.
2. A pathway not less than 4 feet (1219 mm) wide in a straight line to roof standpipes or ventilation hatches.
3. A pathway not less than 4 feet (1219 mm) wide around roof access hatches, with no fewer than one such pathway to a parapet or roof edge.

4. The pathway shall be over areas capable of supporting the live load of firefighters accessing the roof.

1204.3.3 Smoke ventilation. The solar installation shall be designed to meet the following requirements:

1. Where nongravity-operated smoke and heat vents occur, a pathway not less than 4 feet (1219 mm) wide shall be provided bordering all sides.
2. Smoke ventilation options between array sections shall be one of the following:
 - 2.1. A pathway not less than 8 feet (2438 mm) wide.
 - 2.2. Where gravity-operated dropout smoke and heat vents occur, a pathway not less than 4 feet (1219 mm) wide on not fewer than one side.
 - 2.3. A pathway not less than 4 feet (1219 mm) wide bordering 4-foot by 8-foot (1219 mm by 2438 mm)

venting cutouts every 20 feet (6096 mm) on alternating sides of the pathway.

1204.4 Ground-mounted photovoltaic panel systems. Ground-mounted photovoltaic panel systems shall comply with Section 1204.1 and this section. Setback requirements shall not apply to ground-mounted, free-standing photovoltaic arrays. A clear, brush-free area of 10 feet (3048 mm) shall be required for ground-mounted photovoltaic arrays.

1204.5 Buildings with rapid shutdown. Buildings with rapid shutdown solar photovoltaic systems shall have permanent labels in accordance with Sections 1204.5.1 through 1204.5.3.

1204.5.1 Rapid shutdown type. The type of solar photovoltaic system rapid shutdown shall be labeled with one of the following:

1. For solar photovoltaic systems that shut down the array and the conductors leaving the array, a label shall be provided. The first two lines of the label shall be uppercase characters with a minimum height of 3/8 inch (10 mm) in black on a yellow background. The remaining characters shall be uppercase with a minimum height of 3/16 inch (5 mm) in black on a white background. The label shall be in accordance with Figure 1204.5.1(1) and state the following:

SOLAR PV SYSTEM EQUIPPED WITH
RAPID SHUTDOWN. TURN RAPID
SHUTDOWN SWITCH TO THE “OFF”
POSITION TO SHUT DOWN PV SYSTEM
AND REDUCE SHOCK HAZARD IN
ARRAY.

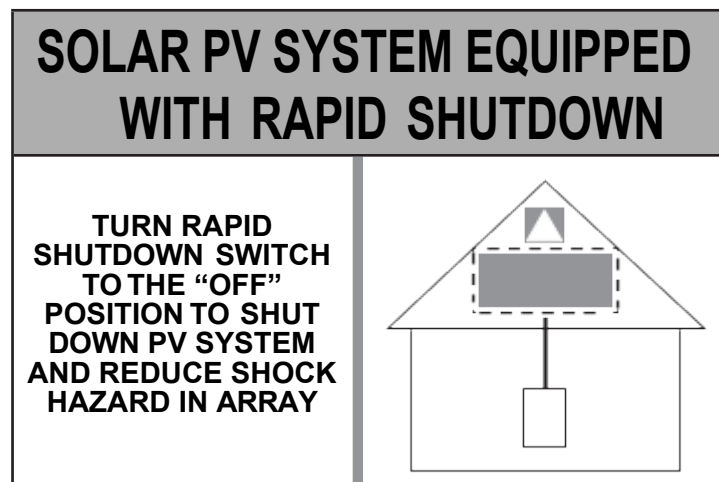


FIGURE 1204.5.1(1)
LABEL FOR SOLAR PV SYSTEMS THAT REDUCE SHOCK HAZARD WITHIN ARRAY AND SHUT DOWN CONDUCTORS LEAVING ARRAY

2. For photovoltaic systems that only shut down conductors leaving the array, a label shall be provided. The first two lines of the label shall be uppercase characters with a minimum height of 3/8 inch (10 mm) in white on a red background and the remaining characters shall be capitalized with a minimum height of 3/16 inch (5 mm) in black on a white background. The label shall be in accordance with Figure 1204.5.1(2) and state the following:

THIS SOLAR PV SYSTEM EQUIPPED
WITH RAPID SHUTDOWN. TURN RAPID
SHUTDOWN SWITCH TO THE “OFF”
POSITION TO SHUT DOWN CONDUCTORS
OUTSIDE THE ARRAY. CONDUCTORS
WITHIN ARRAY REMAIN
ENERGIZED IN SUNLIGHT.

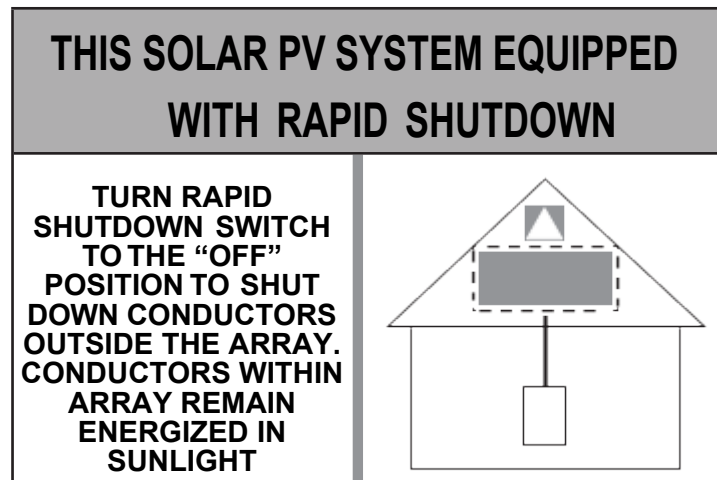


FIGURE 1204.5.1(2)
LABEL FOR SOLAR PV SYSTEMS THAT ONLY SHUT DOWN CONDUCTORS LEAVING THE ARRAY

1204.5.1.1 Diagram. The labels in Section 1204.5.1 shall include a simple diagram of a building with a roof. Diagram sections in red signify sections of the solar photovoltaic system that are not shut down when the rapid shutdown switch is turned off.

1204.5.1.2 Location. The rapid shutdown label in Section 1204.5.1 shall be located not greater than 3 feet (914 mm) from the service disconnecting means to which the photovoltaic systems are connected and shall indicate the location of all identified rapid shutdown switches if not at the same location.

1204.5.2 Buildings with more than one rapid shutdown type. Solar photovoltaic systems that contain rapid shutdown in accordance with both Items 1 and 2 of Section 1204.5.1 or solar photovoltaic systems where only portions of the systems on the building contain rapid shutdown, shall provide a detailed plan view diagram of the roof showing each different photovoltaic system and a dotted line around areas that remain energized after the rapid shutdown switch is operated.

1204.5.3 Rapid shutdown switch. A rapid shutdown switch shall have a label located not greater than 3 feet (914 mm) from the switch that states the following:

RAPID SHUTDOWN SWITCH
FOR SOLAR PV SYSTEM

SECTION 1205 STATIONARY FUEL CELL POWER SYSTEMS

1205.1 General. Stationary fuel cell power systems in new and existing occupancies shall comply with this section.

1205.2 Permits. Permits shall be obtained for stationary fuel cell power systems as set forth in Section 105.7.10.

1205.3 Equipment. Stationary fuel cell power systems shall comply with the following:

1. Prepackaged fuel cell power systems shall be listed and labeled in accordance with CSA FC 1.
2. The modules and components in a pre-engineered fuel cell power system shall be listed and labeled in accordance with CSA FC 1 and interconnected to complete the assembly of the system at the job site in accordance with the manufacturer's instructions and the module and component listings.
3. Field-fabricated fuel cell power systems shall be approved based on a review of the technical report provided in accordance with Section 104.7.2. The report shall be prepared by and bear the stamp of a registered design professional and shall include:
 - 3.1. A fire risk evaluation.
 - 3.2. An evaluation demonstrating that modules and components in the fuel cell power system comply with applicable requirements in CSA FC 1.
 - 3.3. Documentation of the fuel cell power system's compliance with applicable NFPA 2 and NFPA 853 construction requirements.

1205.4 Installation. Stationary fuel cell power systems shall be installed and maintained in accordance with NFPA 70 and NFPA 853, the manufacturer's installation instructions, and the listing. Stationary fuel cell power systems fueled by hydrogen shall be installed and maintained in accordance with NFPA 2 and NFPA 70, the manufacturer's installation instructions and the listing.

1205.5 Residential use. Stationary fuel cell power systems shall not be installed in **Single- and Two-family dwellings**, Group R-3 and R-4 buildings, or dwelling units associated with Group R-2 buildings unless they are specifically listed for residential use.

1205.6 Indoor installations. Stationary fuel cell power systems installed in indoor locations shall comply with Sections 1205.6 through 1205.6.2. For purposes of this section, an indoor location includes a roof and 50 percent or greater enclosing walls.

1205.6.1 Listed. Stationary fuel cell power systems installed indoors shall be specifically listed and labeled for indoor use.

1205.6.2 Separation. Rooms containing stationary fuel cell power systems shall be separated from the following occupancies by fire barriers or horizontal assemblies, or both, constructed in accordance with the International Building Code.

1. Group B, F, M, S and U occupancies by 1-hour fire resistance rated construction.
2. Group A, E, I and R occupancies by 2-hour fire resistance rated construction.

Exception: Stationary fuel cell power systems with an aggregate rating less than 50 kW shall not be required to be separated from other occupancies provided that the systems comply with Section 9.3 of NFPA 853.

1205.7 Vehicle impact protection. Where stationary fuel cell power systems are subject to impact by a motor vehicle, vehicle impact protection shall be provided in accordance with Section 312.

1205.8 Outdoor installation. Stationary fuel cell power systems located outdoors shall be separated by not less than 5 feet (1524 mm) from the following:

1. Lot lines.
2. Public ways.
3. Buildings.
4. Stored combustible materials.
5. Hazardous materials.
6. High-piled stock.
7. Any portion of a designated means of egress system.
8. Other exposure hazards.

1205.9 Fuel supply. The design, location and installation of the fuel supply for stationary fuel cell power systems shall comply with Chapter 53, Chapter 58 and the International Fuel Gas Code, based on the fuel being supplied to the system.

1205.10 Manual shutoff. Access to a manual shutoff valve shall be provided for the fuel piping within 6 feet (1829 mm) of any fuel storage tank serving the fuel cell and within 6 feet (1829 mm) of the power system. If the fuel tank and the stationary fuel cell power system are less than 12 feet (3658 mm) apart, a single shutoff valve shall be permitted. If the stationary fuel cell power system is located indoors, the shutoff valve shall be located outside of the room in which the system is installed, unless otherwise approved by the fire marshal.

1205.11 Ventilation and exhaust. Ventilation and exhaust for stationary fuel cell power systems shall be provided in accordance with NFPA 853.

1205.12 Fire suppression. Fire suppression for stationary fuel cell power system installations shall be provided in accordance with NFPA 853.

1205.13 Gas detection systems. Stationary fuel cell power systems shall be provided with a gas detection system. Detection shall be provided in approved locations in the fuel cell power system enclosure, the exhaust system or the room that encloses the fuel cell power system. The system shall be designed to activate at a flammable gas concentration of not more than 25 percent of the lower flammable limit (LFL).

1205.13.1 System activation. The activation of the gas detection system shall automatically:

1. Close valves between the gas supply and the fuel cell power system.
2. Shut down the fuel cell power system.
3. Initiate local audible and visible alarms in approved locations.

SECTION 1206 ELECTRICAL ENERGY STORAGE SYSTEMS

1206.1 Scope. The provisions in this section are applicable to energy storage systems designed to provide electrical power to a building, facility or electric utility. These systems are used to provide standby or emergency power, an uninterruptable power supply, load shedding, load sharing or similar capabilities. Energy storage systems in Single- and Two-family dwellings, Group R-3 and R-4 occupancies shall be in accordance with Sections 1206.2.1 and 1206.4. Approved signage is required for all installations.

1206.2 Stationary storage battery systems. Stationary storage battery systems having capacities exceeding the values shown in Table 1206.2 shall comply with Section 1206.2.1 through 1206.2.13.6, as applicable. Approved signage is

required for all installations.

TABLE 1206.2
BATTERY STORAGE SYSTEM THRESHOLD QUANTITIES

BATTERY TECHNOLOGY	CAPACITY ^a (kWh)
Flow batteries ^b	20
Lead acid, all types	70
Lithium, all types	20
Nickel cadmium (Ni-Cd)	70
Sodium, all types	20 ^c
Other battery technologies	10

For SI: 1 kilowatt hour = 3.6 megajoules

a. For batteries rated in amp-hours, kWh shall be equal rated value times amp-hour rating divided by 1,000.

b. Shall include vanadium, zinc-bromine, polysulfide-bromide, and other flowing electrolyte-type technologies.

c. 70 kWh for sodium-ion technologies.

1206.2.1 Permits. Permits shall be obtained for the installation and operation of stationary storage battery systems in accordance with Section 105.7.2.

1206.2.2 Construction documents. The following information shall be provided with the permit application:

1. Location and layout diagram of the room in which the stationary storage battery system is to be installed.
2. Details on hourly fire-resistance-rated assemblies provided.
3. Quantities and types of storage batteries and battery systems.
4. Manufacturer's specifications, ratings and listings of storage batteries and battery systems.
5. Details on energy management systems.
6. Location and content of signage.
7. Details on fire-extinguishing, smoke detection and ventilation systems.
8. Rack storage arrangement, including seismic support criteria.

1206.2.3 Hazard mitigation analysis. A failure modes and effects analysis (FMEA) or other approved hazard mitigation analysis shall be provided in accordance with Section 104.7.2 under any of the following conditions:

1. Battery technologies not specifically identified in Table 1206.2 are provided.
2. More than one stationary storage battery technology is provided in a room or indoor area where there is a potential for adverse interaction between technologies.
3. Where allowed as a basis for increasing maximum allowable quantities in accordance with Section 1206.2.9.

4. Where required by the fire marshal.

1206.2.3.1 Fault condition. The hazard mitigation analysis shall evaluate the consequences of the following failure modes, and others deemed necessary by the fire marshal. Only single-failure modes shall be considered.

1. Thermal runaway condition in a single-battery storage rack, module or array.

2. Failure of any energy management system.
3. Failure of any required ventilation system.
4. Voltage surges on the primary electric supply.
5. Short circuits on the load side of the stationary battery storage system.
6. Failure of the smoke detection, fire-extinguishing or gas detection system.
7. Spill neutralization not being provided or failure of the secondary containment system.
8. Failure of temperature control.

1206.2.3.2 Analysis approval. The fire marshal is authorized to approve the hazardous mitigation analysis provided that the hazard mitigation analysis demonstrates all of the following:

1. Fires or explosions will be contained within unoccupied battery storage rooms for the minimum duration of the fire-resistance-rated walls identified in Table 509.1 of the International Building Code.
2. Fires and explosions in battery cabinets in occupied work centers will be detected in time to allow occupants within the room to evacuate safely.
3. Toxic and highly toxic gases released during fires and other fault conditions shall not reach concentrations in excess of Immediately Dangerous to Life or Health (IDLH) levels in the building or adjacent means of egress routes during the time deemed necessary to evacuate from that area.
4. Flammable gases released from batteries during charging, discharging and normal operation shall not exceed 10 percent of their lower flammability limit (LFL).
5. Flammable gases released from batteries during fire, overcharging and other abnormal conditions shall not create an explosion hazard that will injure occupants or emergency responders.

1206.2.3.3 Additional protection measures. Construction, equipment and systems that are required for the stationary storage battery system to comply with the hazardous mitigation analysis, including but not limited to those specifically described in Section 1206.2, shall be installed, maintained and tested in accordance with nationally recognized standards and specified design parameters.

1206.2.3.4 Large-scale fire testing. Where required in Section 1206, large-scale fire testing shall be conducted on a representative stationary storage battery system, in accordance with UL 9540A. The testing shall be conducted or witnessed and reported by an approved testing laboratory. The test report shall be provided to the fire marshal for review and approval in accordance with Section 104.7.2.

1206.2.3.5 Fire remediation. Where a fire or other event has damaged a stationary storage battery system and ignition, or re-ignition of the stationary storage battery system is possible, the fire marshal may require the system owner, agent, or lessee to take actions, at their expense, to mitigate the hazard or remove the damaged equipment from the premise, to a safe location.

1206.2.3.6 Forensic analysis. The fire marshal may also require a forensic analysis of the cause of failure by an independent laboratory approved by the fire marshal in accordance with Section 104.10.2.

1206.2.4 Seismic and structural design. Stationary storage battery systems shall comply with the seismic design requirements in Chapter 16 of the International Building Code and shall not exceed the floor-loading limitation of the building.

1206.2.5 Vehicle impact protection. Where stationary storage battery systems are subject to impact by a motor vehicle, including forklifts, vehicle impact protection shall be provided in accordance with Section 312.

1206.2.6 Combustible storage. Combustible materials not related to the stationary storage battery system shall not be stored in battery rooms, cabinets or enclosures. Combustible materials in occupied work centers covered by Section 1206.2.8.5 shall not be stored less than 3 feet (915 mm) from battery cabinets.

1206.2.7 Testing, maintenance and repair. Storage batteries and associated equipment and systems shall be tested and maintained in accordance with the manufacturer's instructions. Any storage batteries or system components used to replace existing units shall be compatible with the battery charger, energy management systems, other storage batteries and other safety systems. Introducing other types of storage batteries into the stationary storage battery system or other types of electrolytes into flow battery systems shall be treated as a new installation and require approval by the fire marshal before the replacements are introduced into service.

1206.2.8 Location and construction. Rooms and areas containing stationary storage battery systems shall be designed, located and constructed in accordance with Sections 1206.2.8.1 through 1206.2.8.7.4.

1206.2.8.1 Location. Stationary storage battery systems shall not be in the following areas:

1. Where the floor is located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access,
2. Where the floor level is located below the lowest level of exit discharge.

Exceptions:

1. Lead acid and nickel cadmium stationary storage battery systems less than 50 VAC and 60 VDC installed in facilities under the exclusive control of communications utilities in accordance with NFPA 76.
2. Where approved, installations shall be permitted in underground vaults complying with NFPA 70, Article 450, Part III.
3. Where approved by the fire marshal, installations shall be permitted on higher and lower floors.
4. Installations on noncombustible rooftops of buildings exceeding 75 feet (22 860 mm) in height that do not obstruct fire department rooftop operations, where approved by the fire marshal.

1206.2.8.2 Separation. Rooms containing stationary storage battery systems shall be separated from other areas of the building in accordance with Section 509.1 of the International Building Code. Battery systems shall be allowed to be in the same room with the equipment they support.

1206.2.8.3 Stationary battery arrays. Storage batteries, prepackaged stationary storage battery systems and pre-engineered stationary storage battery systems shall be segregated into stationary battery arrays not exceeding 50 kWh (180 megajoules) each. Each stationary battery array shall be spaced not less than 3 feet (914 mm) from other stationary battery arrays and from walls in the storage room or area. The storage arrangements shall comply with Chapter 10.

Exceptions:

1. Lead acid and nickel cadmium storage battery arrays.
2. Listed pre-engineered stationary storage battery systems and prepackaged stationary storage battery systems shall not exceed 250 kWh (900 megajoules) each, *where approved by the fire marshal.
3. The fire marshal is authorized to approve listed, pre-engineered and prepackaged battery arrays with larger capacities or smaller battery array spacing if large-scale fire and fault condition testing conducted or witnessed and reported by an approved testing laboratory is provided showing that a fire involving one array will not propagate to an adjacent array, and be contained within the room for a duration equal to the fire-resistance rating of the room separation specified in Table 509 of the International Building Code.

1206.2.8.4 Separate rooms. Where stationary batteries are installed in a separate equipment room that can be accessed only by authorized personnel, they shall be permitted to be installed on an open rack for ease of maintenance.

1206.2.8.5 Occupied work centers. Where stationary storage batteries are in an occupied work center, they shall be housed in a noncombustible cabinet or other enclosure to prevent access by unauthorized personnel.

1206.2.8.5.1 Cabinets. Where stationary batteries are contained in cabinets in occupied work centers, the cabinet enclosures shall be located within 10 feet (3048 mm) of the equipment that they support.

1206.2.8.6 Signage. Approved signs shall be provided on or adjacent to all entry for battery storage rooms or areas and on enclosures of battery storage cabinets and walk-in units located outdoors, on rooftops or in open parking garages. Signs designed to meet both the requirements of this section and NFPA 70 shall be permitted. The signage shall include the following or equivalent:

1. "Energy Storage System", "Battery Storage System", "Capacitor Energy Storage System", or the equivalent.

2. The identification of the electrochemical battery energy storage system technology present. "Energized Electrical Circuits"

3. If water reactive electrochemical battery energy storage system are present, the signage shall include "APPLY NO WATER"

4. Current contact information, including phone number, for personnel authorized to service the equipment and fire mitigation personnel.

Exception: Existing stationary storage battery systems shall be permitted to include the signage required at the time it was installed.

1206.2.8.6.1 Electrical disconnects. Where the stationary storage battery system disconnecting means is not within sight of the main service disconnecting means, placards or directories shall be installed at the location of the main service disconnecting means indicating the location of stationary storage battery system disconnecting means in accordance with NFPA 70.

1206.2.8.6.2 Cabinet signage. Battery storage cabinets provided in occupied work centers in accordance with Section 1206.2.8.5 shall have exterior labels that identify the manufacturer

and model number of the system and electrical rating (voltage and current) of the contained battery system. There shall be signs within the cabinet that indicate the relevant electrical and chemical hazards, as required by Section 1206.2.12.

1206.2.8.7 Outdoor installations. Stationary storage battery systems located outdoors shall comply with Sections 1206.2.8.7 through 1206.2.8.7.4, in addition to all applicable requirements of Section 1206.2. Installations in outdoor enclosures or containers that can be occupied for servicing, testing, maintenance and other functions shall be treated as battery storage rooms.

Exception: Stationary battery arrays in noncombustible containers shall not be required to be spaced 3 feet (914 mm) from the container walls.

1206.2.8.7.1 Separation. Stationary storage battery systems located outdoors shall be separated by not less than **10 feet (3048 mm)** from the following:

1. Lot lines.
2. Public ways.
3. Buildings.
4. Stored combustible materials.
5. Hazardous materials.
6. High-piled stock.
7. Other exposure hazards.

Exception: The fire marshal is authorized to approve smaller separation distances if largescale fire and fault condition testing conducted or witnessed and reported by an approved testing laboratory is provided showing that a fire involving the system will not adversely impact occupant egress from adjacent buildings, or adversely impact adjacent stored materials or structures.

1206.2.8.7.2 Means of egress. Stationary storage battery systems located outdoors shall be separated from any means of egress as required by the fire marshal to ensure safe egress under fire conditions, but not less than 10 feet (3048 mm).

Exception: The fire marshal is authorized to approve lesser separation distances if large-scale fire and fault condition testing conducted or witnessed and reported by an approved testing laboratory is provided showing that a fire involving the system will not adversely impact occupant egress.

1206.2.8.7.3 Security of outdoor areas. Outdoor areas in which stationary storage battery systems are located shall be secured against unauthorized entry and safeguarded in an approved manner.

1206.2.8.7.4 Walk-in units. Where a stationary storage battery system includes an outer enclosure, the unit shall only be entered for inspection, maintenance and repair of batteries and electronics, and shall not be occupied for other purposes.

1206.2.9 Maximum allowable quantities. Fire areas within buildings containing stationary storage battery

systems exceeding the maximum allowable quantities in Table 1206.2.9 shall comply with all applicable Group H occupancy requirements in this code and the International Building Code.

Exception: Where approved by the fire marshal, areas containing stationary storage batteries that exceed the amounts in Table 1206.2.9 shall be treated as incidental use areas and not Group H occupancies based on a hazardous mitigation analysis in accordance with Section 1206.2.3 and large-scale fire and fault condition testing conducted or witnessed and reported by an approved testing laboratory.

1206.2.9.1 Mixed battery systems. Where areas within buildings contain different types of storage battery technologies, the total aggregate quantities of batteries shall be determined based on the sum of percentages of each battery type quantity divided by the maximum allowable quantity of each battery type. If the sum of the percentages exceeds 100 percent, the area shall be treated as a Group H occupancy in accordance with Table 1206.2.9.

TABLE 1206.2.9

BATTERY TECHNOLOGY	MAXIMUM ALLOWABLE QUANTITIES	GROUP H OCCUPANCY
Flow batteries ^b	600 kWh	Group H-2
Lead-acid, all types	Unlimited	Not-applicable
Lithium, all types	600 kWh	Group H-2
Nickel-cadmium (Ni-Cd)	Unlimited	Not-applicable
Sodium, all types	600 kWh	Group H-2
Other battery technologies	200 kWh	Group H-2 ^c

MAXIMUM ALLOWABLE BATTERY QUANTITIES

For SI: 1 kilowatt hour = 3.6 megajoules

a. For batteries rated in amp-hours, kWh shall be equal rated value times amp-hour rating divided by 1,000.

b. Shall include vanadium, zinc-bromine, polysulfide-bromide, and other flowing electrolyte-type technologies.

c. Shall be a Group H-4 occupancy of the fire marshal determines that a fire or thermal runaway involving the battery technology does not represent a significant fire hazard.

1206.2.10 Storage batteries and equipment. The design and installation of storage batteries and related equipment shall comply with Sections 1206.2.10.1 through 1206.2.10.8.

1206.2.10.1 Listings. Storage batteries and battery storage systems shall comply with the following:

1. Storage batteries shall be listed in accordance with UL 1973.
2. Prepackaged and pre-engineered stationary storage battery systems shall be listed in accordance with UL 9540.

Exception: Lead-acid batteries are not required to be listed.

1206.2.10.2 Prepackaged and pre-engineered systems. Prepackaged and pre-engineered stationary storage battery systems shall be installed in accordance with their listing and the manufacturer's instructions.

1206.2.10.3 Energy management system. An approved energy management system shall be provided for battery technologies other than lead-acid and nickel cadmium for monitoring and balancing cell voltages, currents and temperatures within the manufacturer's specifications. The system shall transmit an alarm signal to an approved location and to an approved annunciator panel if potentially hazardous temperatures or other conditions such as short circuits, over voltage or under voltage are detected.

1206.2.10.3.1 Annunciator panel. The approved annunciator panel shall visibly indicate any hazardous temperature or other conditions. The location of the annunciator panel shall be approved by the fire marshal.

1206.2.10.4 Battery chargers. Battery chargers shall be compatible with the battery chemistry and the manufacturer's electrical ratings and charging specifications. Battery chargers shall be listed and labeled in accordance with UL 1564 or provided as part of a listed pre-engineered or prepackaged stationary storage battery system.

1206.2.10.5 Inverters. Inverters shall be listed and labeled in accordance with UL 1741. Only inverters listed and labeled for utility interactive system use and identified as interactive shall be allowed to operate in parallel with the electric utility power system to supply power to common loads.

1206.2.10.6 Safety caps. Vented batteries shall be provided with flame-arresting safety caps.

1206.2.10.7 Thermal runaway. Where required by Section 1206.2.12, storage batteries shall be provided with a listed device or other approved method to prevent, detect and control thermal runaway.

1206.2.10.8 Toxic and highly toxic gas. Stationary storage battery systems that have the potential to release toxic and highly toxic gas during charging, discharging and normal use conditions shall comply with Chapter 60.

1206.2.11 Fire-extinguishing and detection systems. Fire-extinguishing and detection systems shall be provided in accordance with Sections 1206.2.11.1 through 1206.2.11.7.

1206.2.11.1 Fire-extinguishing systems. Rooms and areas within buildings and walk-in units containing electrochemical battery energy storage systems shall be equipped with an automatic sprinkler system installed in accordance with Section 903.3.1.1 with a minimum density of 0.6 gpm/ft.2 based on the fire area or 2,500 square feet (232 m2) design area, whichever is smaller or a sprinkler hazard classification based on large-scale fire testing. Commodity classifications for specific technologies of storage batteries shall be in accordance with Chapter 5 of NFPA 13. If the storage battery types are not addressed in Chapter 5 of NFPA 13, the fire marshal is authorized to approve the fire-extinguishing system based on full scale fire and fault condition testing conducted or witnessed and reported by an approved laboratory.

Exception: Spaces or areas containing stationary storage battery systems used exclusively for telecommunications equipment in accordance with Section 903.2.

1206.2.11.1.1 Alternative fire-extinguishing systems. Battery systems that utilize water-reactive materials shall be protected by an approved alternative automatic fire extinguishing system in accordance with Section 904. The system shall be listed for protecting the type, arrangement and quantities of storage batteries in the room. The fire marshal shall be permitted to approve the alternative fire extinguishing system based on full-scale fire and fault condition testing conducted or witnessed and reported by an approved laboratory.

1206.2.11.2 Smoke detection system. An approved automatic smoke detection system shall be installed in rooms containing stationary storage battery systems in accordance with Section 907.2.

1206.2.11.3 Ventilation. Where required by Section 1206.2.3 or 1206.2.12, ventilation of rooms containing stationary storage battery systems shall be provided in accordance with the International Mechanical Code and one of the following:

1. The ventilation system shall be designed to limit the maximum concentration of flammable gas to 10

percent of the lower flammability limit, or for hydrogen, 1.0 percent of the total volume of the room.

2. Continuous ventilation shall be provided at a rate of not less than 1 cubic foot per minute (cfm) per square foot [$0.00508 \text{ m}^3/(\text{s} \cdot \text{m}^2)$] of floor area, but not less than 150 cfm (4 m³/min).

The exhaust system shall be designed to provide air movement across all parts of the floor for gases having a vapor density greater than air and across all parts of the vault ceiling for gases having a vapor density less than air.

1206.2.11.3.1 Cabinet ventilation. Where cabinets located in occupied spaces contain storage batteries that are required by Section 1206.2.3 or 1206.2.12 to be provided with ventilation, the cabinet shall be provided with ventilation in accordance with Section 1206.2.11.3.

1206.2.11.3.2 Supervision. Required mechanical ventilation systems for rooms and cabinets containing storage batteries shall be supervised by an approved central station, proprietary or remote station service or shall initiate an audible and visual signal at an approved constantly attended on-site location.

1206.2.11.3.3 Standby power. Mechanical exhaust ventilation shall be provided with not less than 6 hours of standby power in accordance with International Building Code.

Separation shall be in accordance with NFPA 70.

Where the building, or a portion of the building, served by the mechanical exhaust ventilation is intended to remain operational / occupied during a utility power outage, through the use of an electrical standby power system, whether required or optional; the mechanical exhaust ventilation shall be connected to both the normal electrical service and emergency or standby power system for equivalent time periods.

1206.2.11.3.4 Mechanical exhaust ventilation controls. Clearly identified separate switches shall be provided both to activate the mechanical exhaust ventilation system and to shutoff the ventilation system.

1206.2.11.4 Gas detection system. Where required by Section 1206.2.3 or 1206.2.12 rooms containing stationary storage battery systems shall be protected by a gas detection system complying with Section 916. The gas detection system shall be designed to activate where the level of flammable gas exceeds 10 percent of the lower flammable limit (LFL), or where the level of toxic or highly toxic gas exceeds one half of the IDLH.

1206.2.11.4.1 System activation. Activation of the gas detection system shall result in all the following:

1. Initiation of distinct audible and visible alarms in the battery storage room.
2. Transmission of an alarm to an approved location.
3. De-energizing of the battery charger.
4. Activation of the mechanical ventilation system, where the system is interlocked with the gas detection system.

Exception: Lead-acid and nickel-cadmium stationary storage battery systems shall not be required to comply with Items 1, 2 and 3.

1206.2.11.5 Spill control and neutralization. Where required by Section 1206.2.12, approved methods and materials shall be provided for the control and neutralization of spills of electrolyte or other hazardous materials in areas containing stationary storage batteries as follows:

1. For batteries with free-flowing electrolyte, the method and materials shall be capable of neutralizing a spill of the total capacity from the largest cell or block to a pH between 5.0 and 9.0.
2. For batteries with immobilized electrolyte, the method and material shall be capable of neutralizing a spill of 3.0 percent of the capacity of the largest cell or block in the room to a pH between 5.0 and 9.0.

1206.2.11.5.1 Spill control barrier. Each rack of batteries, or group of racks shall be provided with a liquid-tight 4-inch (102 mm) spill control barrier that extends at least 1-inch (25 mm) beyond the battery rack in all directions.

1206.2.11.6 Explosion Control. Where required by Section 1206.2.12, explosion control, complying with Section 911, NFPA 68 and NFPA 69, shall be provided for rooms, areas or walk-in units containing electrochemical battery energy storage system technologies.

Exceptions:

1. Where approved, explosion control is permitted to be waived by the fire marshal based on large-scale fire testing demonstrating that flammable gases are not liberated from electrochemical battery energy storage system cells or modules.
2. Where approved, explosion control is permitted to be waived by the fire marshal based on documentation provided in accordance with Section 104.7 that demonstrating that the electrochemical battery energy storage system technology to be used does not have the potential to release flammable gas concentrations in excess of 10 percent of the lower flammable limit (LFL) anywhere in the room, area, walk-in unit or structure under thermal runaway or other fault conditions.

1206.2.11.7 Emergency energy release. An approved means must be provided to safely release stored energy from the batteries in an emergency.

1206.2.12 Specific battery-type requirements. This section includes requirements applicable to specific types of storage batteries. Stationary storage battery systems with more than one type of storage battery shall comply with requirements applicable to each battery type.

1206.2.12.1 Lead-acid storage batteries. Stationary storage battery systems utilizing lead-acid storage batteries shall comply with the following:

1. Ventilation shall be provided in accordance with Section 1206.2.11.3.
2. Spill control and neutralization shall be in accordance with Section 1206.2.11.5.
3. Explosion control shall be provided in accordance with Section 1206.11.6.
4. Safety caps shall be provided in accordance with Section 1206.2.10.6.
5. Thermal runaway protection shall be provided for valve-regulated lead-acid (VRLA) storage batteries in accordance with Section 1206.2.10.7.
6. The signage in Section 1203.2.8.6 shall indicate the room contains lead-acid batteries.

1206.2.12.2 Nickel-cadmium (Ni-Cd) storage batteries. Stationary storage battery systems utilizing

nickel cadmium (Ni-Cd) storage batteries shall comply with the following:

1. Ventilation shall be provided in accordance with Section 1206.2.11.3.
2. Spill control and neutralization shall be in accordance with Section 1206.2.11.5.
3. Explosion control shall be provided in accordance with Section 1206.11.6.
4. Safety caps shall be provided in accordance with Section 1206.2.10.6.
5. Thermal runaway protection shall be provided for valve-regulated lead-acid (VRLA) storage batteries in accordance with Section 1206.2.10.7.
6. The signage in Section 1203.2.8.6 shall indicate the room contains nickel-cadmium batteries.

1206.2.12.3 Lithium-ion storage batteries. Stationary storage battery systems utilizing lithium-ion storage batteries shall comply with the following:

1. Ventilation shall be provided in accordance with Section 1206.2.11.3.
2. Explosion control shall be provided in accordance with Section 1206.11.6.
3. Thermal runaway protection shall be provided in accordance with Section 1206.2.10.7.
4. The signage in Section 1206.2.8.6 shall indicate the type of lithium batteries contained in the room.

1206.2.12.4 Sodium-beta storage batteries. Stationary storage battery systems utilizing sodium-beta storage batteries shall comply with the following:

1. Ventilation shall be provided in accordance with Section 1206.2.11.3.
2. The signage in Section 1206.2.8.6 shall indicate the type of sodium batteries in the room and include the instructions, "APPLY NO WATER."

1206.2.12.5 Flow storage batteries. Stationary storage battery systems utilizing flow storage batteries shall comply with the following:

1. Ventilation shall be provided in accordance with Section 1206.2.11.3.
2. Spill control and neutralization shall be in accordance with Section 1206.2.11.5.
3. Explosion control shall be provided in accordance with Section 1206.11.6.
4. Safety caps shall be provided in accordance with Section 1206.2.10.6.
5. Thermal runaway protection shall be provided in accordance with Section 1206.2.10.7.
3. The signage required in Section 1206.2.8.6 shall indicate the type of flow batteries in the room.

1206.2.12.6 Other battery technologies. Stationary storage battery systems utilizing battery technologies other than those described in Sections 1206.2.12.1 through 1206.2.12.5 shall comply with the following:

1. Gas detection systems complying with Section 916 shall be provided in accordance with Section 1206.2.11.4 where the batteries have the potential to produce toxic or highly toxic gas in the storage

room or cabinet in excess of the permissible exposure limits (PEL) during charging, discharging and normal system operation.

2. Mechanical ventilation shall be provided in accordance with Section 1206.2.11.3.

3. Spill control and neutralization shall be in accordance with Section 1206.2.11.5.

4. In addition to the signage required in Section 1206.2.8.6, the marking shall identify the type of batteries present, describe the potential hazards associated with the battery type, and indicate that the room contains energized electrical circuits.

5. Explosion control shall be provided in accordance with Section 1206.11.6.

6. Safety caps shall be provided in accordance with Section 1206.2.10.6.

7. Thermal runaway protection shall be provided in accordance with Section 1206.2.10.7.

1206.2.13 Special Installations. Rooftop and open parking garage battery energy storage system installations shall comply with Sections 1206.2.13.1 through 1206.2.13.4. Signage shall comply with Section 1206.2.8.6.

1206.2.13.1 Clearance to exposures. Battery storage systems located on rooftops and in open parking garages shall be separated by not less than 10 feet (3048 mm) from the following exposures:

1. Buildings, except the building on which rooftop battery energy storage system is mounted

2. Any portion of the building on which a rooftop system is mounted that is elevated above the rooftop on which the system is installed

3. Lot lines

4. Public ways

5. Stored combustible materials

6. Locations where motor vehicles can be parked

7. Hazardous materials

8. Other exposure hazards

Exceptions:

1. Clearances are permitted to be reduced to 3 feet (914 mm) where a 1-hour freestanding fire barrier, suitable for exterior use, and extending 5 feet (1524 mm) above and 5 feet (1524 mm) beyond the physical boundary of the battery energy storage system, installation is provided to protect the exposure.

2. Clearances are permitted to be reduced to 3 feet (914 mm) where a weatherproof enclosure constructed of noncombustible materials is provided over the battery energy storage system and it has been demonstrated that a fire within the enclosure will not ignite combustible materials outside the enclosure.

1206.2.13.2 Fire suppression systems. Battery storage systems located in walk-in units on rooftops or in walk-in units in open parking garages shall be provided with automatic fire suppression systems within the battery energy storage system enclosure in accordance with Section 1206.2.11.1. Areas containing battery energy storage systems other than walk-in units in open parking structures on levels

not open above to the sky shall be provided with an automatic fire suppression system complying with Section 1206.2.11.1.

1206.2.13.3 Rooftop installations. Battery storage systems and associated equipment that are located on rooftops and not enclosed by building construction shall comply with the following:

1. Stairway access to the roof for emergency response and fire department personnel shall be provided either through a bulkhead from the interior of the building or a stairway on the exterior of the building.
2. Service walkways not less than 5 feet (1524 mm) in width shall be provided for service and emergency personnel from the point of access to the roof to the system.
3. Battery storage systems and associated equipment shall be located from the edge of the roof a distance equal to at least the height of the system, equipment, or component but not less than 5 feet (1524 mm).
4. The roofing materials under and within 5 feet (1524 mm) horizontally from a battery storage systems or associated equipment shall be noncombustible or shall have a Class A rating when tested in accordance with ASTM E108 or UL 790.
5. A Class I standpipe outlet shall be installed at an approved location on the roof level of the building or in the stairway bulkhead at the top level.
6. The battery storage systems shall be not less than 10 feet (3048 mm) from the fire service access point on the rooftop.

1206.2.13.4 Open parking garages. Battery storage systems and associated equipment that are in open parking garages shall comply with all of the following:

1. Battery storage systems shall not be located within 50 feet (15 240 mm) of air inlets for building HVAC systems.

Exception: This distance shall be permitted to be reduced to 25 feet (7620 mm) if the automatic fire alarm system monitoring the radiant-energy-sensing detectors de-energizes the ventilation system connected to the air intakes upon detection of fire.

2. Battery storage systems shall not be located within 25 feet (7620 mm) of exits leading from the attached building where located on a covered level of the parking structure not directly open to the sky above.
3. An approved fence with a locked gate or other approved barrier shall be provided to keep the general public not less than 5 feet (1024 mm) from the outer enclosure of the battery energy storage system.

1206.3 Capacitor energy storage systems. Capacitor energy storage systems having capacities exceeding 3 kWh (10.8 megajoules) shall comply with Sections 1206.3 through 1206.3.2.6.1.

Exception: Capacitors regulated by NFPA 70, Chapter 460, and capacitors included as a component part of other listed electrical equipment are not required to comply with this section.

1206.3.1 Permits. Permits shall be obtained for the installation of capacitor energy storage systems in accordance with Section 105.7.3.

1206.3.2 Location and construction. Rooms and areas containing capacitor energy storage systems shall be

designed, located and constructed in accordance with Sections 1206.3.2 through 1206.3.2.5.

1206.3.2.1 Location. Capacitor energy storage systems shall not be located in areas where the floor is located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access, or where the floor level is more than 30 feet (9144 mm) below the finished floor of the lowest level of exit discharge.

1206.3.2.2 Separation. Rooms containing capacitor energy storage systems shall be separated from the following occupancies by fire barriers or horizontal assemblies, or both, constructed in accordance with the International Building Code.

1. Group B, F, M, S and U occupancies by 1-hour fire-resistance-rated construction.
2. Group A, E, I and R occupancies by 2-hour fire resistance rated construction.

1206.3.2.3 Capacitor arrays. Capacitor energy storage systems shall be segregated into capacitor arrays not exceeding 50 kWh each. Each array shall be spaced not less than 3 feet (914 mm) from other arrays and from walls in the storage room or area. The storage arrangements shall comply with Chapter 10.

Exception: Capacitor energy storage systems in noncombustible containers located outdoors shall not be required to be spaced 3 feet (914 mm) from the container walls.

1206.3.2.4 Signage. Approved signs shall be provided on doors or in locations adjacent to the entrances to capacitor energy storage system rooms and shall include the following or equivalent verbiage and information:

1. "CAPACITOR ENERGY STORAGE ROOM."
2. "THIS ROOM CONTAINS ENERGIZED ELECTRICAL CIRCUITS."
3. An identification of the type of capacitors present and the potential hazards associated with the capacitor type.

1206.3.2.5 Electrical disconnects. Where the capacitor energy storage system disconnecting means is not within sight of the main service disconnecting means, placards or directories shall be installed at the location of the main service disconnecting means identifying the location of the capacitor energy storage system disconnecting means in accordance with NFPA 70.

1206.3.2.6 Outdoor installation. Capacitor energy systems located outdoors shall comply with Sections 1206.3.2.6 through 1206.3.2.6.4 in addition to all applicable requirements of Section 1206.3. Installations in outdoor enclosures or containers that can be occupied for servicing, testing, maintenance and other functions shall be treated as capacitor storage rooms.

Exception: Capacitor arrays in noncombustible containers shall not be required to be spaced 3 feet (914 mm) from the container walls.

1206.3.2.6.1 Separation. Capacitor energy systems located outdoors shall be not less than 5 feet (1524 mm) from the following:

1. Lot lines.
2. Public ways.

3. Buildings.
4. Stored combustible materials.
5. Hazardous materials.
6. High-piled stock.
7. Other exposure hazards.

Exception: The fire marshal is authorized to approve lesser separation distances if large-scale fire and fault condition testing conducted or witnessed and reported by an approved testing laboratory is provided showing that a fire involving the system will not adversely impact occupant egress from adjacent buildings, or adversely impact adjacent stored materials or structures.

1206.3.2.6.2 Means of egress. Capacitor energy storage systems located outdoors shall be separated from any means of egress as required by the fire marshal to ensure safe egress under fire conditions, but not less than 10 feet (3048 mm).

Exception: The fire marshal is authorized to approve lesser separation distances if large-scale fire and fault condition testing conducted or witnessed and reported by an approved testing laboratory is provided showing that a fire involving the system will not adversely impact occupant egress.

1206.3.2.6.3 Security of outdoor areas. Outdoor areas in which capacitor energy storage systems are located shall be secured against unauthorized entry and safeguarded in an approved manner.

1206.3.2.6.4 Walk-in units. Where a capacitor energy storage system includes an outer enclosure, the unit shall only be entered for inspection, maintenance and repair of capacitors and electronics, and shall not be occupied for other purposes.

1206.3.3 Maximum allowable quantities. Fire areas within buildings containing capacitor energy storage systems that exceed 600 kWh of energy capacity shall comply with all applicable Group H occupancy requirements in this code and the International Building Code.

1206.3.4 Capacitors and equipment. The design and installation of capacitor energy storage systems and related equipment shall comply with Sections 1206.3.4.1 through 1206.3.4.5.

1206.3.4.1 Listing. Capacitors and capacitor energy storage systems shall comply with the following:

1. Capacitors shall be listed in accordance with UL 1973.
2. Prepackaged and pre-engineered stationary capacitor energy storage systems shall be listed in accordance with UL 9540.

1206.3.4.2 Prepackaged and pre-engineered systems. In addition to other applicable requirements of this code, prepackaged and pre-engineered capacitor energy storage systems shall be installed in accordance with their listing and the manufacturer's instructions.

1206.3.4.3 Energy management system. An approved energy management system shall be provided for monitoring and balancing capacitor voltages, currents and temperatures within the manufacturer's

specifications. The system shall transmit an alarm signal to an approved location if potentially hazardous temperatures or other conditions such as short circuits, over voltage or under voltage are detected.

1206.3.4.4 Capacitor chargers. Capacitor chargers shall be compatible with the capacitor manufacturer's electrical ratings and charging specifications. Capacitor chargers shall be listed and labeled in accordance with UL 1564 or provided as part of a listed pre-engineered or prepackaged capacitor energy storage system.

1206.3.4.5 Toxic and highly toxic gas. Capacitor energy storage systems that have the potential to release toxic and highly toxic materials during charging, discharging and normal use conditions shall comply with Chapter 60.

1206.3.5 Fire-extinguishing and detection systems. Fire-extinguishing and smoke detection systems shall be provided in capacitor energy storage system rooms in accordance with Sections 1206.3.5.1 through 1206.3.5.2.

1206.3.5.1 Fire-extinguishing systems. Rooms containing capacitor energy storage systems shall be equipped with an automatic sprinkler system installed in accordance with Section 903.3.1.1. Commodity classifications for specific capacitor technologies shall be in accordance with Chapter 5 of NFPA 13. If the capacitor types are not addressed in Chapter 5 of NFPA 13, the fire marshal is authorized to approve the automatic sprinkler system based on full-scale fire and fault condition testing conducted by an approved laboratory.

1206.3.5.1.1 Alternative fire-extinguishing systems. Capacitor energy storage systems that utilize water-reactive materials shall be protected by an approved alternative automatic fire-extinguishing system in accordance with Section 904. The system shall be listed for protecting the type, arrangement and quantities of capacitors in the room. The fire marshal shall be permitted to approve the system based on full-scale fire and fault condition testing conducted by an approved laboratory.

1206.3.5.2 Smoke detection system. An approved automatic smoke detection system shall be installed in rooms containing capacitor energy storage systems in accordance with Section 907.2.

1206.3.5.3 Ventilation. Where capacitors release flammable gases during normal operating conditions, ventilation of rooms containing capacitor energy storage systems shall be provided in accordance with the International Mechanical Code and one of the following:

1. The ventilation system shall be designed to limit the maximum concentration of flammable gas to 25 percent of the lower flammability limit.
2. Continuous ventilation shall be provided at a rate of not less than 1 cubic foot per minute (cfm) per square foot [$0.00508 \text{ m}^3/(\text{s} \cdot \text{m}^2)$] of floor area, but not less than 150 cfm (4 m^3/min).

The exhaust system shall be designed to provide air movement across all parts of the floor for gases having a vapor density greater than air and across all parts of the ceiling for gases having a vapor density less than air.

1206.3.5.3.1 Supervision. Required mechanical ventilation systems for rooms containing capacitor energy storage systems shall be supervised by an approved central station, proprietary or remote station service, or shall initiate an audible and visible signal at an approved, constantly attended on-site location.

1206.3.5.4 Spill control and neutralization. Where capacitors contain liquid electrolyte, approved methods and materials shall be provided for the control and neutralization of spills of electrolyte or other hazardous materials in areas containing capacitors as follows:

1. For capacitors with free-flowing electrolyte, the method and materials shall be capable of neutralizing a spill of the total capacity from the largest cell or block to a pH between 5.0 and 9.0.
2. For capacitors with immobilized electrolyte, the method and material shall be capable of neutralizing a spill of 3.0 percent of the capacity of the largest cell or block in the room to a pH between 5.0 and 9.0.

1206.3.6 Testing, maintenance and repair. Capacitors and associated equipment and systems shall be tested and maintained in accordance with the manufacturer's instructions. Any capacitors or system components used to replace existing units shall be compatible with the capacitor charger, energy management systems, other capacitors, and other safety systems. Introducing different capacitor technologies into the capacitor energy storage system shall be treated as a new installation and require approval by the fire marshal before the replacements are introduced into service.

1206.4 Energy storage system in Single- and Two-Family Dwellings, Group R-3, and R-4 occupancies. Energy storage systems in Single- and Two-Family Dwellings, Group R-3, and R-4 occupancies shall be installed and maintained in accordance with this section. The temporary use of an owner or occupant's electric-powered vehicle as an energy storage system shall be in accordance with this section.

Exception: Energy storage systems in Single- and Two-Family Dwellings, Group R-3, and R-4 occupancies with a capacity of 3 kWh or less.

1206.4.1 Equipment listings. Energy storage system shall be listed and labeled for residential use in accordance with UL 9540.

Exceptions:

1. Where approved, repurposed unlisted battery systems from electric vehicles may be installed outdoors or in detached dedicated cabinets located not less than 5 feet (1524 mm) from exterior walls, property lines and public ways.
2. Energy storage systems less than 1 kWh.

1206.4.2 Installation. Energy storage system shall be installed in accordance with the manufacturer's instructions and their listing.

1206.4.2.1 Spacing. Individual units shall be separated from each other by at least 3 feet (914 mm) of spacing unless smaller separation distances are documented and approved by the fire marshal to be adequate based on large-scale fire testing.

1206.4.3 Location. Energy storage systems shall only be installed in the following locations:

1. Detached garages and detached accessory structures.
2. Attached garages separated from the dwelling unit living space and sleeping units in accordance with Section 406.3.2 of the International Building Code and the International Residential Code.
3. Outdoors on exterior walls in accordance with 1206.4.3.1
4. Other locations with Fire Marshal approval.

1206.4.3.1 Exterior wall and outdoor installations. Energy storage systems shall be permitted to be installed outdoors on exterior walls of buildings or on the ground where all of the following conditions are met:

1. The maximum energy capacity of individual energy storage system units shall not exceed 20 kWh.
2. The energy storage system shall be installed in accordance with the manufacturer's instructions and their listing.
3. Individual energy storage system units shall be separated from each other by not less than 3 feet (914 mm).
4. The energy storage system shall be separated from doors, windows, operable openings into buildings, or HVAC inlets by at least 5 feet (1524 mm).

Exception: Where approved by the fire marshal, smaller separation distances in Items 4 and 5 may be permitted based on large scale fire testing

1206.4.4 Energy ratings. Individual energy storage systems units shall have a maximum rating of 20 kWh. The aggregate rating structure shall not exceed:

1. 80 kWh in attached or detached garages and detached accessory structures.
2. 80 kWh on exterior walls.
3. 80 kWh outdoors on the ground.

1206.4.5 Electrical installation. Energy storage system shall be installed in accordance with NFPA 70. Inverters shall be listed and labeled in accordance with UL 1741 or provided as part of the UL 9540 listing. Systems connected to the utility grid shall use inverters listed for utility interaction.

1206.4.6 Multiple-station smoke alarms. Listed multiple-station smoke alarms shall be installed and maintained within the dwelling unit in accordance with Section 907.2.10.

1206.4.7 Heat Detector. A heat detector listed and interconnected to the multiple-station smoke alarms required in Section 1206.4.6 shall be installed in attached garages.

1206.4.8 Fire detection. Rooms and areas within dwellings units, sleeping units and attached garages in which energy storage systems are installed shall be protected by smoke alarms in accordance with Section 907.2.10. A heat detector listed and interconnected to the smoke alarms shall be installed in locations within dwelling units, sleeping units and attached garages where smoke alarms cannot be installed based on their listing.

1206.4.9 Protection from impact. Stationary storage battery systems installed in a location subject to vehicle damage shall be protected by approved barriers.

1206.4.810 Existing Fuel Burning Appliances. All existing fuel burning appliances in garages shall be installed in accordance with Section 304.3 of the International Mechanical Code.

1206.4.9 Ventilation. When installed in attached garages, energy storage systems that include batteries that produce hydrogen or other flammable gases during charging shall be provided with ventilation in accordance with Section 1206.2.11.3.

1206.4.10 Toxic and highly toxic gas. Energy storage systems that have the potential to release toxic or highly toxic gas during charging, discharging and normal use conditions shall not be installed within Single- and Two-

Family Dwellings, Group R-3 or R-4 occupancies.

Sections 2301.4 and 2301.4.1 are deleted.

Section 5601.2.3 is deleted in its entirety and replaced with the following:

5601.2.3 Permit restrictions. The storage of explosives and blasting agents is prohibited within the entire City, except for temporary storage for use in connection with approved blasting operations. However, this prohibition shall not apply to wholesale and retail stocks of small arms ammunition, explosive bolts, explosive rivets or cartridges for explosive- actuated power tools in quantities involving less than 500 pounds (226.8 kg) of explosive material.

Section 5704.2.9.6.1 is deleted in its entirety and replaced with the following:

5704.2.9.6.1 Locations where above-ground tanks are prohibited. Storage of Class I and II liquids in above-ground tanks outside of buildings is prohibited within the limits established by The Zoning Ordinance of the City of Avondale, Arizona.

Section 5704.2.13.1.4 is deleted in its entirety and replaced with the following

5704.2.13.1.4 Tanks abandoned in place. The abandonment of tanks in place is prohibited within the entire City.

Section 5706.2.4.4 is deleted in its entirety and replaced with the following:

5706.2.4.4 Locations where above-ground tanks are prohibited. Storage of Class I and II liquids in above-ground tanks outside of buildings is prohibited within the limits established by The Zoning Ordinance of the City of Avondale, Arizona.

Section 5706.5.4.6 is added to read as follows:

5706.5.4.6 Fueling of vehicles at motorsport venues. Dispensing of motor vehicle fuel from tank vehicles into the fuel tanks of motor vehicles located at an *approved* motorsport venue is allowed by special permit from the *fire marshal*, provided such dispensing operations are conducted in accordance with section 5706.2.8, section 5706.5.4.5 and the following:

1. A Fueling Safety Plan shall be required to coordinate fueling operations, equipment, personnel, training, personal protective equipment, ignition source control, fueling procedures and safety procedures in accordance with this code and the appropriate NFPA standards.

2. An Emergency Response Plan shall be required to coordinate spill procedures, fire procedures, evacuation procedures and emergency procedures in accordance with this code and the appropriate NFPA standards.

3. A Fire Protection Plan shall be required to coordinate the fire protection water supply, fire equipment, foam firefighting systems, personnel, training, personal protective equipment and fire protection procedures in accordance with this code and the appropriate NFPA standards.

4. A Spill Prevention, Control and Countermeasures Plan (SPCC) shall be required in accordance with Environmental Protection Agency (EPA) requirements.

5. The Fueling Safety Plan, Emergency Response Plan, Fire Protection Plan and Spill Prevention, Control and Countermeasures Plan shall be reviewed, sealed and signed by a qualified Arizona Registered Professional Engineer.



January 19, 2021

*Avondale Amendments
to the
2018 International Fire Code*

The International Fire Code, 2018 Edition, as published by the International Code Council, is amended in the following respects:

Section 101 is deleted in its entirety and replaced with the following:

101.1 Title. These regulations shall be known as the Fire Code of the City of Avondale, hereinafter referred to as “this code”.

101.2 Scope. This code establishes regulations affecting or relating to structures, processes, premises and safeguards regarding all of the following:

1. The hazard of fire and explosion arising from the storage, handling or use of structures, materials or devices.
2. Conditions hazardous to life, property, or public welfare in the occupancy of structures or premises.
3. Fire hazards in the structure or on the premises from occupancy or operation.
4. Matters related to the construction, extension, repair, alteration or removal of fire suppression or alarm systems.
5. Conditions affecting the safety of fire fighters and emergency responders during emergency operations.

101.2.1 Appendices. The following appendices are adopted by the City of Avondale: Appendix E, F, G, H, I, L, and N.

101.3 Intent. The purpose of this code is to establish the minimum requirements consistent with nationally recognized good practice for providing a reasonable level of life safety and property protection from the hazards of fire, explosion or dangerous conditions in new and existing buildings, structures and premises, and to provide a reasonable level of safety to fire fighters and emergency responders during emergency operations.

101.4 Severability. If a section, subsection, sentence, clause or phrase of this code is, for any reason, held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this code.

101.5 Validity. In the event any part or provision of this code is held to be illegal or void, this shall not have the effect of making void or illegal any of the other parts or provisions hereof, which are determined to be legal; and it shall be presumed that this code would have been adopted without such illegal or invalid parts or provisions.

101.6 Responsible party. For the purpose of this code, unless a particular section, subsection or clause places compliance responsibility upon a different person, the property owner, the tenant or occupant in responsible control of the premises and the person, firm or corporation performing the work all have the duty to ensure that all applicable requirements of this code are complied with. Failure to comply with the provisions of this code or with a lawful order of the *fire marshal*, subjects the owner, the tenant, or the occupant, and the firm or corporation performing the work to the criminal penalties and civil remedies prescribed in Section 110.

Section 102 is deleted in its entirety and replaced with the following:

102.1 Construction and design provisions. The construction and design provisions of this code shall apply to:

1. Structures, facilities and conditions arising after the adoption of this code.
2. Existing structures, facilities, and conditions not legally in existence at the time of adoption of this code.
3. Existing structures, facilities, and conditions where required in Chapter 11.
4. Existing structures, facilities, and conditions that, in the opinion of the *fire marshal*, constitute a distinct hazard to life or property.

102.2 Administrative, operational and maintenance provisions. The administrative, operational and maintenance provisions of this code shall apply to:

1. Conditions and operations arising after the adoption of this code.

2. Existing conditions and operations.

102.3 City of Avondale Codes. The following locally adopted codes and terms shall replace the listed referenced documents and terms as follows:

1. Any references to the ICC Electrical Code shall be deleted and the words “electrical code adopted by the City of Avondale and amended from time to time” shall be inserted in lieu thereof.
2. Any references to the International Fuel Gas Code shall be deleted and the words “plumbing code adopted by the City of Avondale and amended from time to time” shall be inserted in lieu thereof.
3. Any references to the International Plumbing Code or the City of Phoenix Plumbing Code shall be deleted and the words “plumbing code adopted by the City of Avondale and amended from time to time” shall be inserted in lieu thereof.
4. Any references to the International Zoning Code shall be deleted and the words “zoning code adopted by the City of Avondale and amended from time to time” shall be inserted in lieu thereof.
5. Any references to the International Property Maintenance Code shall be deleted and the words “property maintenance code adopted by the City of Avondale and amended from time to time” shall be inserted in lieu thereof.

Any references to the International Private Sewage Disposal Code or International Energy Conservation Code shall be deleted.

102.4 Change of use or occupancy. A change of occupancy shall not be made unless the use or occupancy is made to comply with the requirements of this code and the *International Building Code*.

Exception: Where approved by the *fire marshal*, a change of occupancy shall be permitted without complying with the requirements of this code and the *International Building Code* for those groups, provided the new or proposed use is less hazardous, based on life and fire risk, than the existing use or occupancy.

102.5 Application of building code. The design and construction of new structures shall comply with the *International Building Code*, and any *alterations*, additions, changes in use or changes in structures required by this code, which are within the scope of the *International Building Code*, shall be made in accordance therewith.

102.6 Application of residential code. Where structures are designed and constructed in accordance with the *International Residential Code*, the provisions of this code shall apply as follows:

1. Construction and design provisions of this code pertaining to the exterior of the structure shall apply including, but not limited to, premises identification, fire apparatus access and water supplies. Where interior or exterior systems or devices are installed, construction permits required by Section 105.7 of this code shall apply.
2. Construction and design provisions of this code pertaining to the installation of fire sprinklers for structures exceeding 5,000 square feet in area. Where interior systems or devices are installed, construction permits required by Section 105.7 of this code shall apply.
3. Administrative, operational, maintenance, and hazardous materials provisions of this code shall apply.

102.7 Historic buildings. The provisions of this code relating to the construction, *alteration*, repair, enlargement, restoration, relocation or moving of buildings or structures shall not be mandatory for existing buildings or structures identified and classified by the state or local jurisdiction as historic buildings where such buildings or structures do not constitute a distinct hazard to life or property. Fire protection in designated historic buildings shall be provided with an *approved* fire protection plan as required in Section 1103.1.1.

102.8 Referenced codes and standards. The codes and standards referenced in this code shall be those that are listed in Chapter 80, and such codes and standards shall be considered to be part of the requirements of this code to the prescribed

extent of each such reference and as further regulated in Sections 102.7.1 and 102.7.2.

102.8.1 Conflicts. Where conflicts occur between provisions of this code and referenced codes and standards, the provisions of this code shall apply.

102.8.2 Provisions in referenced codes and standards. Where the extent of the reference to a referenced code or standard includes subject matter that is within the scope of this code, the provisions of this code, as applicable, shall take precedence over the provisions in the referenced code or standard.

102.9 Subjects not regulated by this code. Where applicable standards or requirements are not set forth in this code, or are contained within other laws, codes, regulations, ordinances or bylaws adopted by the jurisdiction, compliance with applicable standards of the National Fire Protection Association or other nationally recognized fire safety standards, as *approved*, shall be deemed as prima facie evidence of compliance with the intent of this code. Nothing herein shall derogate from the authority of the *fire marshal* to determine compliance with codes or standards for those activities or installations within the *fire marshal's* jurisdiction or responsibility.

102.10 Matters not provided for. Requirements that are essential for the public safety of an existing or proposed activity, building or structure, or for the safety of the occupants thereof, that are not specifically provided for by this code, shall be determined by the *fire marshal*.

102.11 Conflicting provisions. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable. Where, in a specific case, different sections of this code specify different materials, methods of construction or other requirements, the most restrictive shall govern.

102.12 Other laws. The provisions of this code shall not be deemed to nullify any provisions of local, state or federal law.

102.13 Application of references. References to chapter or section numbers, or to provisions not specifically identified by number, shall be construed to refer to such chapter, section or provision of this code.

Section 103 DEPARTMENT OF FIRE PREVENTION is re-titled and amended as follows:

Title: SECTION 103 COMMUNITY RISK REDUCTION DIVISION

Section 103.1 is deleted in its entirety and replaced with the following:

103.1 General. The Community Risk Reduction Division is established within the City of Avondale under the direction of the fire marshal. The function of this Division shall be the implementation, administration and enforcement of the provisions of this code. Any references to the fire code official, within this code, shall be deleted and replaced with fire marshal.

Section 104 is deleted in its entirety and replaced with the following:

104.1 General. The fire marshal is hereby authorized to enforce the provisions of this code. The *fire marshal* shall have the authority to render interpretations of this code, and to adopt policies, procedures, rules and regulations in order to clarify the application of its provisions. Such interpretations, policies, procedures, rules and regulations shall be in compliance with the intent and purpose of this code. Such policies, procedures, rules and regulations shall not have the effect of waiving requirements specifically provided for in this code.

104.2 Applications and permits. The *fire marshal* is authorized to receive applications, review *construction documents* and issue permits for construction regulated by this code, issue permits for operations regulated by this code, inspect the premises for which such permits have been issued and enforce compliance with the provisions of this code.

104.3 Right of entry. Where it is necessary to make an inspection to enforce the provisions of this code, the City Code, a department policy, or where the fire marshal has reasonable cause to believe that there exists in a building or upon any premises any conditions or violations of this code that make the building or premises unsafe, dangerous or hazardous, the fire marshal shall have the authority to enter the building or premises at all reasonable times to inspect or to perform the duties imposed upon the fire marshal by this code. If such building or premises is occupied, the fire marshal shall present

credentials to the occupant and request entry. If such building or premises is unoccupied, the fire marshal shall first make a reasonable effort to locate the owner, the owner's authorized agent or other person having charge or control of the building or premises and request entry. If entry is refused, the fire marshal has recourse to every remedy provided by law to secure entry.

104.4 Warrant. As set forth herein, the fire marshal may seek the issuance of an inspection warrant by the judge if the fire marshal is denied access to any property, building or structure that the fire marshal has authority to inspect. The fire marshal shall, in a supporting affidavit, establish that there is probable cause that a violation of this Code or the City Code exists and that the proposed inspection is reasonable and necessary. Probable cause may be established based on any of the following:

1. Previous inspections have shown violations and the present inspection is necessary to determine whether those violations have been abated.
2. Complaints have been received and presented to the fire marshal from persons, who by status or position have personal knowledge of the violations of law occurring on the subject property, building or structure.
3. A construction permit has been issued and the present inspection is necessary to determine conformance with this code.
4. An operational permit has been issued and the present inspection is necessary to determine conformance with this code.
5. The inspection of the premises in question was to be made pursuant to an administrative plan containing neutral criterion supporting the need for the inspection.

104.4.1 Occupied Properties. In executing an inspection warrant on an occupied property, the fire marshal shall, before entry, make a reasonable effort to present the person's credentials, authority and purpose to the owner, occupant, agent, manager or person in possession of the property and produce the warrant or a copy thereof upon request. A copy of the warrant shall be left with the owner, occupant, agent, manager or person in possession of the property.

104.4.2 Unoccupied Properties. In executing an inspection warrant on an unoccupied property, the fire marshal authorized to execute the warrant need not inform anyone of the person's authority and purpose, but may promptly enter the designated property if it is at the time unoccupied or not in the possession of any person or at the time reasonably believed to be in such condition. In such case, a copy of the inspection warrant shall be conspicuously posted on the property.

104.4.3 Refusal. Any person who willfully refuses to permit an inspection lawfully authorized by warrant issued pursuant to this section is guilty of a class 1 misdemeanor.

104.4.4 Execution. An inspection warrant shall be executed within five (5) calendar days from its issuance. The warrant shall be returned to the city Judge within three (3) court business days after the inspection warrant is executed.

104.5 Identification. The *fire marshal* shall carry proper identification when inspecting structures or premises in the performance of duties under this code.

104.6 Orders, notices, and tags. The fire marshal is authorized to issue such notices or orders as are required to affect compliance with this code in accordance with Section 110.

104.7 Official records. The *fire marshal* shall keep official records as required by the State of Arizona General Retention Schedules.

EXCEPTION: Official records of activities conducted on behalf of the Office of the State Fire Marshal shall be retained for a period of five years.

104.8 Approved materials and equipment. Materials, equipment and devices *approved* by the *fire marshal* shall be constructed and installed in accordance with such approval.

104.8.1 Material and equipment reuse. Materials, equipment and devices shall not be reused or reinstalled unless such elements have been reconditioned, tested and placed in good and proper working condition and *approved*.

104.8.2 Technical assistance. To determine the acceptability of technologies, processes, products, facilities, materials and uses attending the design, operation or use of a building or premises subject to inspection by the *fire marshal*, the *fire marshal* is authorized to require the *owner* or owner's authorized agent to provide, without charge to the jurisdiction, a technical opinion and report. The opinion and report shall be prepared by a qualified engineer, specialist, laboratory or fire safety specialty organization acceptable to the *fire marshal* and shall analyze the fire safety properties of the design, operation or use of the building or premises and the facilities and appurtenances situated thereon, to recommend necessary changes. The *fire marshal* is authorized to require design submittals to be prepared by, and bear the stamp of, a registered design professional.

104.9 Modifications. Where there are practical difficulties involved in carrying out the provisions of this code, the *fire marshal* shall have the authority to grant modifications for individual cases, provided the *fire marshal* shall first find that special individual reason makes the strict letter of this code impractical and the modification is in compliance with the intent and purpose of this code and that such modification does not lessen health, life and fire safety requirements. The details of action granting modifications shall be recorded and entered in the files of the department of fire prevention.

104.10 Alternative materials, design and methods of construction and equipment. The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative has been *approved*. An alternative material, design or method of construction shall be approved where the *fire marshal* finds that the proposed design is satisfactory and complies with the intent of the provisions of this code, and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in this code in quality, strength, effectiveness, *fire resistance*, durability and safety. Where the alternative material, design or method of construction is not approved, the *fire marshal* shall respond in writing, stating the reasons why the alternative was not approved.

104.10.1 Research reports. Supporting data, where necessary to assist in the approval of materials or assemblies not specifically provided for in this code, shall consist of valid research reports from *approved* sources.

104.10.2 Tests. Where there is insufficient evidence of compliance with the provisions of this code, or evidence that a material or method does not conform to the requirements of this code, or in order to substantiate claims for alternative materials or methods, the *fire marshal* shall have the authority to require tests as evidence of compliance to be made at no expense to the jurisdiction. Test methods shall be as specified in this code or by other recognized test standards. In the absence of recognized and accepted test methods, the *fire marshal* shall approve the testing procedures. Tests shall be performed by an *approved* agency. Reports of such tests shall be retained by the *fire marshal* for the period required for retention of public records.

104.11 Fire investigations. The fire department shall investigate or cause to be investigated promptly the cause, origin and circumstance of each and every fire occurring in the jurisdiction involving loss of life or injury to a person or destruction or damage to property, and if it appears to the member of the fire department making the investigation that such fire is of suspicious origin, the member shall notify the appropriate law enforcement agency and shall secure the site until the law enforcement agency takes control of the site. The fire investigator shall continue to pursue the investigation to its conclusion.

104.11.1 Assistance from other agencies. Police, Maricopa County Arson Task Force, other fire departments, and enforcement agencies shall have authority to render necessary assistance in the investigation of fires when requested to do so.

104.12 Authority at fires and other emergencies. The fire chief or officer of the fire department in charge at the scene of a fire or other emergency involving the protection of life or property, or any part thereof, shall have the authority to direct such operation as necessary to extinguish or control any fire, perform any rescue operation, investigate the existence of suspected or reported fires, gas leaks or other hazardous conditions or situations, or take any other action necessary in the reasonable performance of duty. In the exercise of such power, the fire chief is authorized to prohibit any person, vehicle, vessel or thing from approaching the scene, and is authorized to remove, or cause to be removed or kept away

from the scene, any vehicle, vessel or thing that could impede or interfere with the operations of the fire department and, in the judgment of the fire chief, any person not actually and usefully employed in the extinguishing of such fire or in the preservation of property in the vicinity thereof.

104.12.1 Barricades. The fire chief or officer of the fire department in charge at the scene of an emergency is authorized to place ropes, guards, barricades or other obstructions across any street, alley, place or private property in the vicinity of such operation so as to prevent accidents or interference with the lawful efforts of the fire department to manage and control the situation and to handle fire apparatus.

104.12.2 Obstructing operations. Persons shall not obstruct the operations of the fire department in connection with extinguishment or control of any fire, or actions relative to other emergencies, or disobey any lawful command of the fire chief or officer of the fire department in charge of the emergency, or any part thereof, or any lawful order of a police officer assisting the fire department.

104.12.3 Systems and devices. Persons shall not render a system or device inoperative during an emergency unless by direction of the fire chief or fire department official in charge of the incident.

Section 105.6.15 is deleted in its entirety.

Section 105.6.16 is deleted in its entirety and replaced with the following:

105.6.16 Flammable and Combustible Liquids. An operational permit is required;

1. To use or operate a pipeline for the transportation within facilities of flammable or combustible liquids. This requirement shall not apply to the off- site transportation in pipelines regulated by the Department of Transportation (DOTn) nor does it apply to piping systems.
2. To store, handle or use Class I liquids in excess of 5 gallons (19 L) in a building or in excess of 10 gallons (37.9 L) outside of a building, except that a permit is not required for the following:
 - 2.1. The storage or use of Class I liquids in the fuel tank of a motor vehicle, aircraft, motorboat, mobile power plant or mobile heating plant, unless such storage, in the opinion of the fire marshal, would cause an unsafe condition.
 - 2.2. The storage or use of paints, oils, varnishes, or similar flammable mixtures when such liquids are stored for maintenance, painting or similar purposes for a period of not more than 30 days.
3. To store, handle or use Class II or Class IIIA liquids in excess of 25 gallons (95 L) in a building or in excess of 60 gallons (227 L) outside a building, except for fuel oil used in connection with oil- burning equipment.
4. To store, handle, or use Class IIIB liquids in tanks or portable tanks for fueling motor vehicles at motor fuel-dispensing facilities or where connected to fuel-burning equipment.

Exception: Fuel oil and used motor oil used for space heating or water heating.

5. To remove Class I or II liquids from an under- ground storage tank used for fueling motor vehicles by any means other than the approved, stationary on-site pumps normally used for dispensing purposes.
6. To operate refineries, distilleries, plants, terminals, wells, and similar facilities where flammable and

combustible liquids are produced, processed, transported, stored, dispensed or used.

7. To place temporarily out of service (for more than 90 days) an underground, protected above-ground or above-ground flammable or combustible liquid tank.

8. To change the type of contents stored in a flammable or combustible liquid tank to a material that poses a greater hazard than that for which the tank was designed and constructed.

9. To manufacture, process, blend or refine flammable or combustible liquids.

10. To engage in the dispensing of liquid fuels into the fuel tanks of motor vehicles at racetracks, commercial, industrial, governmental or manufacturing establishments in accordance with Section 5706.5.4 or to engage in on-demand mobile fueling operations in accordance with Section 5707.

11. To utilize a site for the dispensing of liquid fuels from tank vehicles into the fuel tanks of motor vehicles, marine craft and other special equipment at commercial, industrial, governmental, construction or manufacturing establishments.

Section 105.6.20 is deleted in its entirety and replaced with the following:

105.6.20 Hazardous Materials. An operational permit is required to store, transport on site, dispense, use or handle hazardous materials in excess of the amounts listed in Table 105.6.20. A hazardous materials assessment fee shall be established by the City Council as part of the annual budget process or as otherwise adopted by City Council resolution and shall be required for the annual inventory assessment, administrative process and code research activities.

Section 105.7 is deleted and replaced with the following:

105.7 Required construction permits. The fire marshal is authorized to issue construction permits for work as set forth in Section 105.7.1 through 105.7.28.

105.7.1 Access. A construction permit is required for premise identification review, identification of fire protection equipment, key boxes, stairwell identification, and address directories. Maintenance performed in accordance with this code is not considered to be a modification and does not require a permit.

105.7.2 Automatic fire-extinguishing systems. A construction permit is required for installation of or modification to an automatic fire-extinguishing system. Maintenance performed in accordance with this code is not considered to be a modification and does not require a permit.

105.7.3 Battery systems. A permit is required to install stationary storage battery systems regulated by Section 1206.2.

105.7.4 Capacitor energy storage systems. A permit is required to install capacitor energy storage systems regulated by Section 1206.3.

105.7.5 Compressed gases. Where the compressed gases in use or storage exceed the amounts listed in Table 105.6.9, a construction permit is required to install, repair damage to, abandon, remove, place temporarily out of service, or close or substantially modify a *compressed gas* system.

Exceptions:

1. Routine maintenance.

2. For emergency repair work performed on an emergency basis, application for permit shall be made within two working days of commencement of work.

105.7.6 Cryogenic fluids. A construction permit is required for installation of or *alteration* to outdoor stationary *cryogenic fluid* storage systems where the system capacity exceeds the amounts listed in Table 105.6.11. Maintenance performed in accordance with this code is not considered to be an *alteration* and does not require a construction permit.

105.7.7 Emergency responder radio coverage system. A construction permit is required for installation of or modification to emergency responder radio coverage systems and related equipment. Maintenance performed in accordance with this code is not considered to be a modification and does not require a construction permit.

105.7.8 Fire alarm and detection systems and related equipment. A construction permit is required for installation of or modification to fire alarm and detection systems and related equipment. Maintenance performed in accordance with this code is not considered to be a modification and does not require a construction permit.

105.7.9 Fire apparatus access roads. A construction permit is required to install or modify temporary or permanent fire apparatus access roads and fire lane markings.

105.7.10 Fire pumps and related equipment. A construction permit is required for installation of or modification to fire pumps and related fuel tanks, jockey pumps, controllers and generators. Maintenance performed in accordance with this code is not considered to be a modification and does not require a construction permit.

105.7.11 Firefighter breathing air system. A construction permit is required for installation of or modification of a firefighter breathing air system.

105.7.12 Flammable and combustible liquids. A construction permit is required:

1. To install, repair or modify a pipeline for the transportation of flammable or *combustible liquids*.
2. To install, construct or alter tank vehicles, equipment, tanks, plants, terminals, wells, fuel-dispensing stations, refineries, distilleries and similar facilities where flammable and *combustible liquids* are produced, processed, transported, stored, dispensed or used.
3. To install, alter, remove, abandon or otherwise dispose of a flammable or *combustible liquid* tank.

105.7.13 Fuel cell power systems. A construction permit is required to install stationary fuel cell power systems.

105.7.14 Gas detection systems. A construction permit is required for the installation of or modification to gas detection systems. Maintenance performed in accordance with this code is not considered to be a modification and does not require a construction permit.

105.7.15 Gates and barricades. A construction permit is required for the installation of or modification to required pedestrian and vehicular gate or barricade. Maintenance performed in accordance with this code is not considered to be a modification and does not require a construction permit.

105.7.16 Hazardous materials. A construction permit is required to install, repair damage to, abandon, remove, place temporarily out of service, or close or substantially modify a storage facility or other area regulated by Chapter 50 where the hazardous materials in use or storage exceed the amounts listed in Table 105.6.21.

Exceptions:

1. Routine maintenance.
2. For repair work performed on an emergency basis, application for permit shall be made within two working days of commencement of work.

105.7.17 High-piled combustible storage. A construction permit is required for the installation of or modification to a structure exceeding 500 square feet, including aisles, for high-piled combustible storage. Maintenance performed in accordance with this code is not considered to be a modification and does not require a construction permit.

105.7.18 Industrial ovens. A construction permit is required for installation of industrial ovens covered by Chapter 30.

Exceptions:

1. Routine maintenance.
2. For repair work performed on an emergency basis, application for permit shall be made within two working days of commencement of work.

105.7.19 LP-gas. A construction permit is required for installation of or modification to an LP-gas system. Maintenance performed in accordance with this code is not considered to be a modification and does not require a permit.

105.7.20 Motor vehicle repair rooms and booths. A construction permit is required to install or modify a motor vehicle repair room or booth. Maintenance performed in accordance with this code is not considered to be a modification and does not require a permit.

105.7.21 Plant extraction systems. A construction permit is required to install or modify a plant extraction system. Maintenance performed in accordance with this code is not considered to be a modification and does not require a permit.

105.7.22 Private fire hydrants and fire service mains. A construction permit is required to install or modify private fire hydrants, and private fire service mains.

105.7.23 Smoke control or smoke exhaust systems. Construction permits are required for installation of or alteration to smoke control or smoke exhaust systems. Maintenance performed in accordance with this code is not considered to be an alteration and does not require a permit.

105.7.24 Solar photovoltaic power systems. A construction permit is required to install or modify solar photovoltaic power systems on or adjacent to commercial structures. Maintenance performed in accordance with this code is not considered to be a modification and does not require a permit.

105.7.25 Special event structure. A single construction permit is required to erect and take down a temporary special event structure.

105.7.26 Spraying or dipping. A construction permit is required to install or modify a spray room, dip tank or booth. Maintenance performed in accordance with this code is not considered to be a modification and does not require a permit.

105.7.27 Standpipe systems. A construction permit is required for the installation, modification or removal from service of a standpipe system. Maintenance performed in accordance with this code is not considered to be a modification and does not require a permit.

105.7.28 Temporary membrane structures and tents. A construction permit is required to erect an air-supported temporary membrane structure, a temporary stage canopy or a tent having an area in excess of 400 square feet (37 m²).

Exceptions:

1. Tents used exclusively for recreational camping purposes.

2. Funeral tents and curtains, or extensions attached thereto, when used for funeral services.
3. Tents and awnings open on all sides, which comply with all of the following:
 - 3.1. Individual tents shall have a maximum size of 700 square feet (65 m²).
 - 3.2. The aggregate area of multiple tents placed side by side without a fire break clearance of not less than 12 feet (3658 mm) shall not exceed 700 square feet (65 m²) total.
 - 3.3. A minimum clearance of 12 feet (3658 mm) to structures and other tents shall be maintained.

Section 106 is deleted in its entirety and replaced with the following:

106.1 Fees. A permit shall not be issued until the fees have been paid, nor shall an amendment to a permit be released until the additional fee, if any, has been paid.

106.2 Schedule of permit fees. The fees for plan review, appeals, fire watch personnel, construction and operational permits, inspections, and certificates shall be in accordance with the city adopted fee schedule, as amended.

106.3 Work commencing before permit issuance. A person who commences any work, activity or operation regulated by this code before obtaining the necessary permits shall be subject to an additional fee in accordance with the city adopted fee schedule, which shall be in addition to the required permit fees.

106.4 Related fees. The payment of the fee for the construction, *alteration*, removal or demolition of work done in connection to or concurrently with the work or activity authorized by a permit shall not relieve the applicant or holder of the permit from the payment of other fees that are prescribed by law.

106.5 Refunds. The fire marshal may authorize a refund under the following circumstances upon written application filed by the original permittee not later than 90 days after the date of fee payment.

1. The fire marshal shall be permitted to authorize refunding of a fee paid hereunder which was erroneously paid or collected.
2. The *fire marshal* shall be permitted to authorize refunding of not more than 80 percent of the permit fee paid when no work has been done under a permit issued in accordance with this code.
3. The *fire marshal* shall be permitted to authorize refunding of not more than 80 percent of the plan review fee paid when an application for a permit for which a plan review fee has been paid is withdrawn or canceled before any examination time has been expended.

Section 107.5 is added to read as follows:

107.5 Re-inspection. A re-inspection fee may be assessed for each inspection or re-inspection when such portion of work for which inspection is called or scheduled is not complete or when corrections are not made. If the items that were identified during the previous inspection are not corrected at the time of the re-inspection, no further fire inspections will be scheduled until a re-inspection fee is paid. Re-inspection fees may also be assessed when the permit is not posted or otherwise available on the work site, the *approved* plans are not readily available to the inspector, for failure to provide access on the date and time for which inspection is requested, failure to have a competent party on-site or for deviating from plans requiring the approval of the *fire marshal*; or failing to provide the correct address so that an inspection cannot be made as scheduled. Each re-inspection will be assessed this fee.

Section 110 is deleted in its entirety and replaced with the following sections,

Title: SECTION 110 ENFORCEMENT

110.1 General.

1. The city shall proceed either civilly or criminally against any person who is found to be responsible for causing, permitting, facilitating, or aiding or abetting any violation of any provision of this code or for failing to

perform any act or duty required by this chapter. A written notice of violation shall be issued to the alleged violator, in accordance with the provisions of Section 110.3. If the violation is not remedied within the time frame specified in the notice of violation, a citation may be issued.

2. Each day a violation of any provision of this chapter or the failure to perform any act or duty required by this code continues shall constitute a separate violation or offense.
3. It shall be unlawful for any responsible party who has received a notice of a violation to sell, transfer, mortgage, lease or otherwise dispose of such property until the provisions of this code have been complied with, or until such responsible party first furnishes the grantee, transferee, mortgagee or lessee a true copy of any notice issued by the fire marshal or his authorized designee and furnishes to the fire marshal or his authorized designee a signed and notarized statement from the grantee, transferee, mortgagee or lessee acknowledging the receipt of such notice and fully accepting the responsibility without condition for making the corrections or repairs required by such notice.
4. When two (2) or more persons have liability to the city or are responsible for a violation of this code, their responsibility shall be joint and several.
5. Violations of this code are in addition to any other violation enumerated within the City Code and in no way limit the penalties, actions or procedures which may be taken by the city for any violation of this chapter which is also a violation of any other provision of the City Code or any other applicable law. The remedies specified herein are cumulative and the city may proceed under these or any other remedies authorized by law.
6. Any responsible party failing to comply with the provisions of this chapter shall be deemed guilty of a misdemeanor for those offenses deemed criminal under this chapter or a civil violation for all other offenses.

110.2 Owner of record. The owner(s) of record, as recorded in the Maricopa County Recorder's Office or as stated on the Maricopa County Assessor's Office tax bill, may be presumed to have lawful control over any building or parcel of land.

110.3 Notice of Violation. The fire marshal or his authorized designee shall seek voluntary compliance with the provisions of this code before issuing a civil citation or criminal complaint, as applicable. This shall include a written notice of violation served on the responsible person or persons.

1. A notice of violation may be issued by the fire marshal or their deputies, any code enforcement officer, police officer, or other city agent or employee duly authorized by the city manager.
2. A notice of violation shall include:
 - a. Identification of the property or location of the violation;
 - b. A statement of the violation(s) in sufficient detail to allow a responsible party to identify and correct the problem;
 - c. A re-inspection date; and
 - d. The name of the person at the city to contact for further information.
3. A notice of violation shall be deemed effective on the date when the written notice is:
 - a. Hand delivered in person to the owner, occupant, manager, or agent of the premises where the violation has occurred, or to the person responsible for the violation.
 - b. Posted on or about the entrance of the premises where the violation occurred.
 - c. Mailed by certified or first-class mail, postage prepaid addressed to the owner, occupant, agent, manager or responsible person at the last known mailing

address and three business days have elapsed.

- d. Served on the owner, occupant, agent, manager or responsible person by the same manner as provided in the Arizona Rules of Civil Procedure.
 - e. For the purpose of parking violations, placed on the subject vehicle's windshield or mailed by certified or first-class mail to the subject vehicle's registered owner's last known address with the Arizona Motor Vehicle Division.
4. Except in cases involving health and safety violations, imminent hazards, recidivist offenders, or as otherwise prescribed by ordinance, a responsible person will be provided with an appropriate time for compliance.
 5. Failure of the responsible party, property owner, occupant, manager or authorized agent of the property owner to receive a notice of violation shall not preclude the subsequent issuance of a civil citation or criminal complaint, as applicable.
 6. Nothing in this section shall prevent the city from taking immediate action to protect the public from an imminent hazard to health or safety as otherwise provided by law.

110.4 Civil citations.

1. Unless otherwise designated as a criminal offense in this code, if a violation continues past the time provided for voluntary compliance in the notice of violation, a civil citation may be issued to the person responsible for the violation.
2. A civil citation may be issued by the fire marshal or their deputies, any code enforcement officer, inspector, police officer, or other city agent or employee duly authorized by the city manager.
3. The citation shall include the date of the violation, the location of the property and reference(s) to the section(s) of the code violated.
4. The citation shall direct the defendant to pay the fine imposed pursuant to Section 110.5 or appear in municipal court within ten (10) days of the issuance of the citation.
5. The citation shall provide notice that if the defendant fails to pay the fine or appear in city court as directed, a default judgment will be entered in the amount of the fine designated on the citation for the violation. In addition, a default fee may be imposed for failure to appear as set forth in Section 110.5.
6. Service of the citation may be accomplished and will be deemed proper and complete by any of the following means:
 1. Hand delivering the citation to the defendant.
 - b. Mailing a copy of the citation by certified or registered mail, return receipt requested, to the defendant's last known address. If the citation is returned showing that the certified mail was not delivered, a copy thereof shall be posted in a conspicuous place in or about the structure affected by such citation.
 - c. Any means allowed by the Arizona Rules of Civil Procedure for the Superior Court.
 - d. Service of a citation for a parking violation may be accomplished by placing a copy of the citation on the subject vehicle's windshield or by mailing the citation by certified or registered mail, return receipt requested to the subject vehicle's registered owner's last known address on file with the Arizona Motor Vehicle Division.

110.5 Civil procedure.

1. The defendant shall, within ten (10) days of the issuance of the citation, either pay the fine indicated on the citation or appear in city court to admit or deny the allegations contained in the citation.
 - a. The defendant may pay the fine in person or by mailing the citation with a check for the amount of the fine to the city court. By paying the fine, the defendant admits the violation described in the citation and accepts responsibility for the offense.
 - b. The defendant may appear in person or through an attorney in city court and either admit or deny the allegations contained in the citation. If the defendant admits the allegations, the court shall immediately enter a judgment against the defendant in the amount of the fine for the violation charged. If the defendant denies the allegations contained in the citation, the court shall set a hearing date for the matter.
2. If the defendant fails to pay the fine or appear in city court as directed by the citation, the court shall enter a default judgment and impose the fine and default fee required by Section 110.6.
3. If the defendant fails to appear at the time and place set for hearing by the court, the court shall enter a default judgment and impose the fine and default fee required by Section 110.6.
4. The Arizona Rules of Procedure in Civil Traffic Violation cases shall be followed by the city court for civil violations of this chapter, except as modified or where inconsistent with the provisions of this chapter, local rules of the city court or rules of the Arizona Supreme Court.

110.6 Civil penalties.

1. Any person that violates this chapter shall be subject to a civil penalty of two hundred fifty dollars (\$250.00) base fine for the first violation, five hundred dollars (\$500.00) base fine for a second violation and one thousand dollars (\$1,000.00) base fine for a third violation in any twenty-four-month period. The dates of the offenses are the determining factor for calculating the twenty-four-month period.
2. Any defendant that fails to pay the fine or appear in municipal court as directed by a citation issued pursuant to this chapter, or who fails to appear at the time and place set for hearing of a matter arising under this chapter, shall be subject to an additional default fee as established by the city court.
3. Any judgments issued by the city court shall be subject to all surcharges and fees imposed by state law in addition to the civil fines required by this chapter.
4. Judgments shall be collected in the same manner as any other civil judgment as provided by law.

110.7 Recidivist offenders. Any person deemed to be a recidivist offender shall be penalized and fined subject to the provisions of Section 1-9(d)(6) of the City Code.

110.8 Criminal complaints. The fire marshal or any other city agent or employee duly authorized by the city manager may seek the issuance of a criminal complaint by a police officer or the Avondale City Prosecutor for criminal prosecution of any person who commits a criminal offense as set forth in this chapter.

1. Every criminal action and proceeding under this chapter shall be designated a class one misdemeanor and commenced and prosecuted in accordance with the laws of the State of Arizona relating to misdemeanors and the Arizona Rules of Criminal Procedure.
2. Upon conviction of a person for a criminal offense, the court may impose any combination of the following:
 - a. A sentence of incarceration not to exceed six (6) months in jail.
 - b. A base fine not to exceed two thousand five hundred dollars (\$2,500.00), exclusive of penalty assessments

prescribed by law.

- c. A term of probation.
- d. Notwithstanding the elective penalty above, a recidivist offender shall be subject to the penalties set forth in Chapter 1 of the City Code.

110.9 Abatement costs.

1. If the owner or occupant of any property within the city does not remove or abate from its property a violation that constitutes a hazard to public health and safety within thirty (30) days after written notice has been served by the city, the city may, at the expense of the owner or occupant, remove or cause the removal thereof and the record owner shall be liable for all costs incurred. The notice shall include the estimated cost of such removal to the city if the owner or occupant does not comply.
2. Any person who places, deposits, leaves or causes in or upon any public street, alleyway, sidewalk, park or other city building or property a violation that constitutes a hazard to public health and safety shall be liable for all costs incurred by the city to remove or clean up such violation.
3. When the city has affected removal or abatement of a violation that constitutes a hazard to public safety from any building or property pursuant to this section, the actual cost of such removal, including twenty-five (25) percent for additional inspection and other incidental costs in connection therewith, shall become an assessment upon the building or real property from which such violation is removed. The owner of record of such property shall be liable for the payment of same. If the actual cost for removal, including twenty-five (25) percent for additional inspection and other incidental costs in connection therewith, has not been paid within thirty (30) days of billing by the city, such assessment shall be recorded in the office of the county recorder. From the date of the recording it shall be a lien on such building or property until paid. Such liens shall be prior and superior to all other liens, obligations, mortgages or other encumbrances, except liens for general taxes.
4. A prior assessment against the building or property shall not be a bar to a subsequent assessment or assessments for such purposes, and any number of liens on the same property may be enforced in the same action.
5. A notice of abatement or assessment may be appealed to the city manager for an administrative hearing for review of such notice. A request for an administrative hearing shall be made within the time frame prescribed for compliance in the notice and within thirty (30) calendar days from the date of the assessment.

110.10 Administrative Appeal. Whenever a violation of this code has been found and the applicant wishes to appeal the decision of the fire marshal or his authorized designee because the code or the rules legally adopted there under have been incorrectly interpreted or an equivalent method of protection or safety is proposed, an appeal may be filed as follows:

1. The applicant shall file a written appeal, within ten (10) working days after receiving notice of the violation. The appeal shall be filed with the City Manager or his authorized designee and a copy filed with the Fire Chief. Upon filing, the applicant may request an informal review before the fire marshal.
2. The appeal will be heard by the City Manager or his designee within 15 working days after the request is filed. The City Manager, or an authorized representative, may use a Committee consisting of such staff as is deemed appropriate to provide advice on the appeal.
3. The applicant shall provide specific information on the basis for the appeal and the relief requested.
4. If the City Manager upholds the decision of the fire marshal, the applicant shall comply with the requirement(s) of the fire code.

Section 112.4 is modified to read as follows:

112.4 Failure to comply; fees. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable for penalties subject to the provisions of Section 10-42 of the City Code.

Section 307 is deleted in its entirety and replaced with the following:

307.1 General. A person shall not kindle or maintain or authorize to be kindled or maintained any *open burning*, bonfires, recreational fires, or portable outdoor fireplaces unless conducted and *approved* in accordance with Sections 307.2 through 307.7.

307.2 Burning prohibited. Open burning, bonfires, recreational fires, and portable outdoor fireplaces shall be prohibited when restricted by the Maricopa County Air Quality Department, or when the *fire marshal* determines local circumstances make such fires hazardous.

307.3 Inappropriate Fuel. An inappropriate fuel includes, but is not limited to: leaves, grass clippings, green plants, refuse, paper, rubbish, books, magazines, fiberboard, packaging, rags, fabrics, animal waste, animal carcasses, coal, waste oil, liquid or gelatinous hydrocarbons, tar, asphalt products, waste petroleum products, paints and solvents, chemically soaked wood, wood with a moisture content of greater than 20 percent, treated wood, plastic or plastic products, rubber or rubber products, office records, sensitive or classified wastes, or any substance which normally emits dense smoke or obnoxious odors other than paper to start the fire or properly seasoned wood.

307.4 Permit required. A permit shall be obtained from the *fire marshal* in accordance with Section 105.6 prior to kindling a bonfire. Application for such approval shall only be presented by and permits issued to the *owner* of the land upon which the fire is to be kindled.

307.4.1 Authorization. Where required by state or local law or regulations, *open burning* shall only be permitted with prior approval from the state or local air and water quality management authority, provided that all conditions specified in the authorization are followed.

307.5 Extinguishment authority. Where *open burning*, bonfires, recreational fires, or portable outdoor fireplaces creates or adds to a hazardous situation, is prohibited by Section 307.2, the location does not comply with the requirements of Section 307.6, or a bonfire has been kindled without obtaining a permit, the *fire marshal* is authorized to order the extinguishment of the fire.

307.6 Location. The location of *open burning*, bonfires, recreational fires, and portable outdoor fireplaces shall be in accordance with Sections 307.6.1 through 307.6.4

307.6.1 Open burning. The location for *open burning* shall be not less than 50 feet (15 240 mm) from any structure, and provisions shall be made to prevent the fire from spreading to within 50 feet (15 240 mm) of any structure.

Exceptions:

1. Fires in *approved* containers that are not less than 15 feet (4572 mm) from a structure.
2. The minimum required distance from a structure shall be 25 feet (7620 mm) where the pile size is 3 feet (914 mm) or less in diameter and 2 feet (610 mm) or less in height.

307.6.2 Bonfires. A bonfire shall not be conducted within 50 feet (15 240 mm) of a structure or combustible material unless the fire is contained in a barbecue pit. Conditions that could cause a fire to spread within 50 feet (15 240 mm) of a structure shall be eliminated prior to ignition.

307.6.3 Recreational fires. *Recreational fires* shall not be conducted within 25 feet (7620 mm) of a structure or combustible material. Conditions that could cause a fire to spread within 25 feet (7620 mm) of a structure shall be eliminated prior to ignition.

307.6.4 Portable outdoor fireplaces. Portable outdoor fireplaces shall be used in accordance with the manufacturer's instructions and shall not be operated within 15 feet (3048 mm) of a structure or combustible material.

307.7 Attendance. Open burning, bonfires, recreational fires and use of portable outdoor fireplaces shall be constantly attended until the fire is extinguished. A minimum of one portable fire extinguisher complying with Section 906 with a minimum 4-A rating or other approved on-site fire-extinguishing equipment, such as dirt, sand, water barrel, garden hose or water truck, shall be available for immediate utilization.

Section 319 is deleted in its entirety and replaced with the following:

319.1 General. Mobile food preparation vehicles that are equipped with appliances that produce smoke or grease-laden vapors shall comply with this section and A.R.S. § 9-485, as amended.

319.2 Permit required. Permits are required as set forth in Section 105.6.

319.3 Exhaust hood. Cooking equipment that produces grease-laden vapors shall be provided with a kitchen exhaust hood in accordance with section 607.

319.4 Fire protection. Fire Protection shall be provided in accordance with Sections 319.4.1 and 319.4.2.

319.4.1 Fire protection for cooking equipment. Cooking equipment shall be protected by automatic fire extinguishing systems in accordance with section 904.12.

319.4.2 Fire extinguisher. Portable fire extinguishers shall be provided in accordance with section 906.4.

319.5 Appliance connection to fuel supply piping. Gas cooking appliances shall be secured in place and connected to fuel supply piping with an appliance connector complying with ANSI Z21.69/CSA 6.16. The connector installation shall be configured in accordance with the manufacturer's installation instructions. Movement of appliances shall be limited by restraining devices installed in accordance with the connector an appliance manufacturer's instructions.

319.6 Cooking oil storage containers. Cooking oil storage containers within mobile food preparation vehicles shall have a maximum aggregate volume not more than 120 gallons and shall be stored in such a way as not to be toppled or damaged during transport.

319.7 Cooking oil storage tanks. Cooking oil storage tanks within mobile food preparation vehicles shall comply with Sections 319.7.1 through 319.7.5.2.

319.7.1 Metallic storage tanks. Metallic cooking oil storage tanks shall be listed in accordance with UL 80 or UL 142, and shall be installed in accordance with the tank manufacturer's instructions.

319.7.2 Nonmetallic storage tanks. Nonmetallic cooking oil storage tanks shall be installed in accordance with the tank manufacturer's instructions and shall comply with both of the following:

1. Tanks shall be listed for the use with cooking oil, including maximum temperature to which the tank will be exposed during use.
2. Tank capacity shall not exceed 200 gallons per tank.

319.7.3 Cooking oil storage system components. Metallic and nonmetallic cooking oil storage system components shall include, but are not limited to, piping, connections, fittings, valves, tubing, hose, pumps, vents, and other related components used for the transfer of cooking oil.

319.7.4 Design criteria. The design, fabrication and assembly of system components shall be suitable for the working pressures, temperatures, and structural stresses to be encountered by the components.

319.7.5 Tank venting. Normal and emergency venting shall be provided for cooking oil storage tanks.

319.7.5.1 Normal vents. Normal vents shall be located above the maximum normal liquid line and shall have a minimum effective area not smaller than the largest filling or withdrawal connection. Normal vents are not required to vent to the exterior.

319.7.5.2 Emergency vents. Emergency relief vents shall be located above the maximum normal liquid line and shall be in the form of a device or devices that will relieve excessive internal pressure caused by an exposure fire. For nonmetallic tanks, the emergency relief vent shall be allowed to be in the form of construction. Emergency vents are not required to discharge to the exterior.

319.8 LP-gas systems. Where LP-gas systems provide fuel for cooking appliances, such systems shall comply with Chapter 61 and Sections 319.8.1 through 319.8.5.

319.8.1 Maximum aggregate volume. The maximum aggregate capacity of LP-gas containers transported on the vehicle and used to fuel cooking appliances only shall not exceed 200 pounds propane capacity.

319.8.2 Protection of container. LP-gas containers installed on the vehicle shall be securely mounted and restrained to prevent movement.

319.8.3 LP-gas container construction. LP-gas containers shall be manufactured in compliance with the requirements of NFPA 58.

319.8.4 Protection of system piping. LP-gas system piping, including valves and fittings, shall be adequately protected to prevent tampering, impact damage, and damage from vibration.

319.8.5 LP-gas alarms. A listed LP- gas alarm shall be installed within the vehicle in the vicinity of LP-gas system components, in accordance with the manufacturer's instructions.

319.9 CNG systems. where CNG Systems provide fuel for cooking appliances, such systems shall comply with sections 319.9.1 through 319. 9.4.

319.9.1 CNG containers supplying only cooking fuel. CNG containers installed solely to provide fuel for cooking purposes shall be in accordance with sections 319.9.1.1 through 319.9.1.3.

319.9.1.1 Maximum aggregate volume. The maximum aggregate capacity of CNG containers transported on the vehicle shall not exceed 1,300 pounds water capacity.

319.9.1.2 Protection of container. CNG containers shall be securely mounted and re strain to prevent movement. Containers shall not be installed in locations subject to a direct vehicle impact.

319.9.1.3 CNG container construction. CNG containers shall be in NGV- 2 cylinder.

319.2 CNG containers supplying transportation and cooking fuel. Where CNG containers and systems are used to supply fuel for cooking purposes in addition to being used for transportation fuel, the installation shall be in accordance with NFPA 52.

319.3 Protection of system piping. CNG system piping, including valves and fittings, shall be adequately protected to prevent tampering, impact damage and damage from vibration.

319.4 Methane alarms. A listed methane gas alarm shall be installed within the vehicle in accordance with manufacturer's instructions.

319.10 Maintenance. Maintenance of systems on mobile food preparation vehicles shall be in accordance with Sections 319.10.1 through 319.10.3.

319.10.1 Exhaust systems. The exhaust system, including hood, grease-removal devices, fans, ducts, and other appurtenances, shall be inspected, and cleaned in accordance with section 607.3.

319.10.2 Fire protection systems and devices. Fire Protection systems and devices shall be maintained in accordance with section 901.6.

319.10.3 Fuel gas systems. LP- gas containers installed on the vehicle and fuel- gas piping systems shall be inspected annually by an improved inspection agency or a company that is registered with the US Department of Transportation to requalify LP- gas cylinders , to ensure that the system components are free from damage, suitable for the intended service and not subject to leaking. CNG containers shall be inspected every three years in a qualified service facility. CNG containers shall not be used past their expiration date as listed on the manufacturer's container label. Upon satisfactory inspection, the approved inspection agency shall affix a tag on the fuel gas system or within the vehicle indicating the name of the inspection agency and the date of satisfactory inspection.

Chapter 5 is deleted in its entirety and replaced with the following:

Title: Chapter 5: FIRE SERVICE FEATURES

SECTION 501 GENERAL

501.1 Scope. Fire service features for buildings, structures and premises shall comply with this chapter.

501.2 Permits. A permit shall be required as set forth in Sections 105.6 and 105.7.

501.3 Construction documents. Construction documents for permits set forth in Section 501.2 shall be submitted to the fire department for review and approval prior to construction.

501.4 Timing of installation. Where fire apparatus access roads or a water supply for fire protection are required to be installed, such protection shall be installed and made serviceable prior to and during the time of construction except when approved alternative methods of protection are provided. Temporary street signs shall be installed at each street intersection where construction of new roadways allows passage by vehicles in accordance with Section 505.2.

SECTION 502 DEFINITIONS

502.1 Definitions. The following terms are defined in Chapter 2:

AGENCY.

FIRE APPARATUS ACCESS ROAD.

FIRE COMMAND CENTER.

FIRE DEPARTMENT MASTER KEY.

FIRE LANE.

KEY BOX.

TRAFFIC CALMING DEVICES.

SECTION 503 FIRE APPARATUS ACCESS ROADS

503.1 Where required. Fire apparatus access roads shall be provided and maintained in accordance with Sections 503.1.1 through 503.1.3.

503.1.1 Buildings and facilities. *Approved fire apparatus* access roads shall be provided for every facility, building or portion of a building hereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall comply with the requirements of this section and shall extend to within 150 feet (45720 mm) of all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building or facility. Except for single- or two-family residences, the path of measurement shall be along a minimum of a 10 foot (3048 mm) wide unobstructed pathway around the external walls of the structure.

Exceptions:

1. The *fire marshal* is authorized to increase the dimension where any of the following conditions occur:

1.1. The building is equipped throughout with an *approved automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.3.

1.2. Fire apparatus access roads cannot be installed because of location on property, topography, waterways, irrigation channels, nonnegotiable grades or other similar conditions, and an *approved* alternative means of fire protection is provided.

1.3. There are not more than two single-family dwellings, Group R-3 or Group U occupancies.

1.4. Where approved by the *fire marshal*.

2. Where approved by the *fire marshal*, fire apparatus access roads shall be permitted to be exempted or modified for solar photovoltaic power generation facilities.

503.1.2 Additional access and obstructions to access. The *fire marshal* is authorized to require more than one fire apparatus access road based on the potential for impairment of a single road by vehicle congestion, condition of terrain, climatic conditions or other factors that could limit access.

503.1.2.1 Fences. When installed fences cause the distances from an approved fire department access road to exceed the maximum distance allowed in Section 503, a pedestrian gate, in accordance with Section 515.1.3.1, shall be provided in the fence to maintain the required fire department access. The gate shall be a minimum 4 feet (1219 mm) in width and be equipped with a key box in accordance with Section 510.

503.1.2.2 Other obstructions to access. When other obstructions are installed that cause the distances from an approved fire department access road to exceed the maximum distance allowed in Section 503, the fire marshal is authorized to require additional fire protection as specified in Section 901.4.4.

503.1.2.3 Pedestrian gates. Pedestrian gates installed as part of the required fire department access shall comply with Section 515.1.3.1.

503.1.3 High-piled storage. Fire department vehicle access to buildings used for *high-piled combustible storage* shall comply with the applicable provisions of Chapter 32.

503.2 Specifications. Fire apparatus access roads shall be installed and arranged in accordance with Sections 503.2.1 through 503.2.8.

503.2.1 Dimensions. Fire apparatus access roads shall have an unobstructed width of not less than 20 feet (6096 mm), exclusive of shoulders, except for *approved* security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 14 feet 6 inches (4267 mm).

Exceptions:

1. Where a fire hydrant is located on a fire apparatus access road, the minimum road width shall be 26 feet (7925 mm), exclusive of shoulders, for a distance 20 feet (6096 mm) before and after the center of the fire hydrant.
2. Where buildings exceeding 30 feet or three stories in height shall have a minimum road width shall be 26 feet (7925 mm), exclusive of shoulders.

503.2.2 Authority. The *fire marshal* shall have the authority to require or permit modifications to the required access widths where they are inadequate for fire or rescue operations or where necessary to meet the public safety objectives of the jurisdiction.

503.2.3 Surface. Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus weighing up to 70,000 pounds (34 050 kg.) and shall be surfaced to provide all-weather driving capabilities.

503.2.3.1 Construction. Fire department access during construction, at a minimum, shall be as follows:

1. Minimum of 6 inches (152 mm) of native soil compacted to 95 percent of standard proctor density (ASTM D 698),
2. Minimum of 4 inches (102 mm) of aggregate base compacted to 100 percent of standard proctor density (ASTM D 698),
3. Water drainage shall be directed away from the fire apparatus access road.

The surface of fire apparatus access roads may differ from the above requirements if it is shown that the surface provided is enough to support an imposed live load of 70,000 pounds (31 752 kg) with a maximum axle load of 28,000 pounds (12 701 kg). An engineer registered by the State of Arizona shall prepare and seal the soil compaction report. The report shall be available for review by the fire marshal.

503.2.4 Turning radius. Fire apparatus access roads shall have a minimum 45-foot centerline radius on curves.

503.2.5 Dead ends. Dead-end fire apparatus access roads in excess of 150 feet (45 720 mm) in length shall terminate in an approved turnaround in accordance with City of Avondale Supplement to Maricopa Association of Governments Standard Specifications and Details for Public Works Detail A1118 or a directed by the fire marshal.

503.2.6 Bridges and elevated surfaces. Where a bridge or an elevated surface is part of a fire apparatus access road, the bridge shall be constructed and maintained in accordance with AASHTO HB-17. Bridges and elevated surfaces shall be designed for a live load enough to carry the imposed loads of fire apparatus. Vehicle load limits shall be posted at both entrances to bridges where required by the fire marshal. Where elevated surfaces designed for emergency vehicle use are adjacent to surfaces that are not designed for such use, approved barriers, approved signs or both shall be installed and maintained where required by the fire marshal.

503.2.6.1 Sign Specification. Vehicle load limit sign shall be constructed with a thickness of .080

aluminum construction with a white 3M Scotchlite reflective background with a black face equivalent to MUTCD Series R12-1 sign.

Figure 503.2.6.1
Vehicle Load Limit Sign – Example



503.2.61.2 Mounting. Vehicle load limit signs shall be installed in an approved manner.

503.2.7 Longitudinal slope. The longitudinal slope of the fire apparatus access road shall not exceed 7 percent.

503.2.8 Angles of approach and departure. The angles of approach and departure for fire apparatus access roads shall be within the limits established by the fire marshal based on the fire department's apparatus.

503.2.9 Loading areas and passenger drop-off areas. On private property, where fire apparatus access roads are utilized for loading or unloading or are utilized for passenger drop off or pickup, an additional 8 feet (2438 mm) of width shall be added to the fire apparatus access road. This width is in addition to the minimum 20-foot (6096 mm) access road width exclusive of shoulders.

503.2.10 Vehicle passing points. When fire department access roads exceed 300 feet in length, vehicle passing points shall be installed at intervals not to exceed 300 feet. Vehicle passing points shall be a minimum of 30 feet in width exclusive of shoulders and 50 feet in length.

503.3 Alternative surface fire apparatus access roads. Alternative surface fire apparatus access roads shall be in accordance with this section and Sections 503.2 and 503.7 through 503.7.7. The surface of fire apparatus access roads may differ from the above requirements if it is shown that the surface provided is enough to support an imposed live load of 70,000 pounds (31 752 kg) with a maximum axle load of 28,000 pounds (12 701 kg). An engineer registered by the State of Arizona shall prepare and seal the soil compaction report. The report shall be available for review by the fire marshal.

503.3.1 Report. Alternative surface fire apparatus access roads shall be designed by an engineer registered by the State of Arizona. The engineer shall prepare a sealed design report for submittal to and approval by the fire department. Plans shall be sealed and submitted with the report

503.3.2 Stabilization. Stabilization of the fire apparatus access road surface shall be addressed in the alternative surface fire apparatus access road report and may be accomplished by curbing.

At a minimum, the surface of fire apparatus access roads shall be as follows:

1. Minimum 6 inches (152 mm) of native soil compacted to 95 percent of standard proctor density (ASTM D 698), and
2. Minimum 4 inches (102 mm) of aggregate base compacted to 100 percent of standard proctor density (ASTM D 698).

The surface of fire apparatus access roads may differ from the above requirements if it is shown that the surface provided is enough to support an imposed live load of 70,000 pounds (31 752 kg) with a maximum axle load of 28,000 pounds (12 701 kg). An engineer registered by the State of Arizona shall prepare and seal the soil compaction report. The report shall be available for review by the fire marshal.

503.3.3 Compaction. Minimum 95 percent compaction of subgrade soil is required.

503.3.4 Curbs. A rolled curb shall be installed at the entrances to fire apparatus access roads in accordance with Maricopa Association of Governments Standard Specifications and Details for Public Works Detail 220 or a directed by the fire marshal.

503.3.5 Marking. The curb shall be painted red or red 4-inch by 4-inch DOT approved retroreflective reflectors shall be installed to define the width of alternative surface fire apparatus access roads. The reflectors shall be imbedded into bordering curbing at intervals not exceeding 25 feet (4572 mm).

503.3.6 Special inspections. An Arizona-registered professional engineer shall conduct a special inspection and provide required documentation in accordance with Section 503.3.11 prior to final approvals being issued for the alternative surface fire apparatus access road.

503.3.7 Special inspection documentation. The special inspection documentation shall include, but not be limited to, the following:

1. Subgrade soil compaction report.
2. Base material quality, thickness and compaction.
3. Concrete depth and compressive strength, when applicable.
4. An evaluation of the installation in accordance with design drawings and manufacturer specifications.
5. Crown and drainage requirements.
6. Stabilization (if curbing is not used).

503.4 Private residential streets. Private residential streets shall be installed and arranged in accordance with this sections 503.4.1 through 503.4.11.

Exception: Alternate designs approved in accordance with Section 104.9.

503.4.1 Tract. The private residential street shall be placed into a tract. The tract shall be dedicated as an easement for emergency vehicles through the subdivision's recorded final plat.

503.4.2 Asphalt concrete pavement width. Asphalt concrete pavement width shall be a minimum of 38 feet (10.4 m) measured back of curb to back of curb.

503.4.3 Asphalt concrete pavement thickness. Asphalt concrete pavement thickness shall be a minimum of 3 inches (77 mm) and shall consist of one lift. All construction materials shall conform to Maricopa Association of Governments Standard Specifications and Details for Public Works Standard Specifications, Sections 321 and 710.

503.4.4 Asphalt concrete pavement slope. The asphalt concrete pavement shall have a 2 percent minimum cross slope as measured from the street centerline to the lip of gutter.

503.4.5 Base course. The base course shall be a minimum of 8 inches (204 mm) and be prepared in accordance with Maricopa Association of Governments Standard Specifications and Details for Public Works Standard Specifications, Sections 310 and 702.

503.4.6 Subgrade. The subgrade shall be prepared in accordance with Maricopa Association of Governments Standard Specifications and Details for Public Works Standard Specifications Section 301.

503.4.7 Gutter. Depending on stormwater design, a Type C roll curb or Type A vertical curb and gutter may

be utilized in accordance with Maricopa Association of Governments Standard Specifications and Details for Public Works Detail 220.

503.4.8 Fire hydrants. Where a fire hydrant is located on a private residential street, parking will be prohibited on the same side of the street as the fire hydrant for a distance 20 feet (6096 mm) before and after the center of the fire hydrant. Prohibited parking areas will be marked in accordance with Sections 503.5.2 and 503.5.2.6.

503.4.9 Fire lane marking. Where required by the fire marshal, approved signs or other approved notices or markings that include the words FIRE LANE-NO PARKING shall be provided for fire apparatus access roads to identify such roads or prohibit the obstruction thereof in accordance with Section 503.5.

503.4.10 Additional design requirements. Private residential street Sections shall be in accordance with Sections 503.2.4 through 503.2.8

503.4.11 Signs. Identification and traffic control signs will be provided in accordance with the City of Avondale Engineering Division requirements.

503.5 Fire lane marking. Where required by the fire marshal, approved signs or other approved notices or markings that include the words FIRE LANE-NO PARKING shall be provided for fire apparatus access roads to identify such roads or prohibit the obstruction thereof. The means by which fire lanes are designated shall always be maintained in a clean and legible condition and be replaced or repaired when necessary to provide adequate visibility.

503.5.1 Where required. Fire lane marking will be required in accordance with Sections 503.5.1.1 to 503.5.1.3.

503.5.1.1 Marking not required. A fire apparatus access road that is greater than 36 feet (10 973 mm) in width shall not be required to have fire lane marking.

503.5.1.2 Marking on both sides of a road. When a fire apparatus access road is less than 28 feet (8534 mm) in width, fire lane marking is required on both sides of the fire apparatus access road.

503.5.1.2 Marking on one side of a road. When a fire apparatus access road is 28 feet (8534 mm) or greater and less than or equal to 36 feet (10 973 mm) in width, fire lane marking is required to be installed on a minimum of one side of the fire apparatus access road.

503.5.1.3 Authority. The *fire marshal* shall have the authority to require fire lane marking where fire lane markings are inadequate for fire or rescue operations or where necessary to meet the public safety objectives of the jurisdiction.

503.5.2 Fire lane marking. Fire lane marking shall be in accordance with this section.

503.5.2.1 Fire lane signs. Fire apparatus access roads shall be identified by fire lane signs as follows:

1. FIRE LANE-NO PARKING signs shall comply with Figures 503.5.2.1(a) through 503.5.2.1(b) and the following:
 - a. The sign plate shall be a minimum of 12 inches (305 mm) wide by 18 inches (457 mm) high with a thickness of .080 aluminum construction,
 - b. The sign face shall have a white reflective background with a red legend. Use of standard 3M Scotchlite sign face MUTCD Series R7 or equivalent, with red screen-printed lettering.
2. Plaques shall comply with Figure 503.5.2.1(c) and the following:
 1. The sign plate shall be a minimum of 12 inches (305 mm) wide by 6 inches (158 mm) high with a thickness of .080 aluminum construction,

2. The sign face shall have a white reflective background with a red legend. Use of standard 3M Scotchlite sign face MUTCD Series R7 or equivalent, with red screen-printed lettering.
3. Signs shall be attached to an approved stationary pole set in concrete a minimum depth of 18 inches (457 mm).
4. The bottom of each sign shall be 7 feet (2137 mm) above grade.
5. Signs shall face oncoming traffic.
6. Signs shall be set back from the curb line or sidewalk a minimum of 12 inches (305 mm) to a maximum of 18 inches (457 mm).
7. Signs shall always be plainly visible. Vegetation or other obstructions shall be located such that a minimum 3-foot (914 mm) clearance is maintained along the line of sight.

Figure 503.5.2.1(a)
Typical FIRE LANE – NO PARKING Sign



Figure 503.5.2.1(b)
Universal Symbol FIRE LANE – NO PARKING Sign



Figure 503.5.2.1 (c)
Sign Plaque



503.5.2.2 Curbs. Curbs used for marking of fire apparatus access roads shall be identified by red paint on both the top and face along the entire length of the fire apparatus access road including bullnose or island curbs. Where no curb exists or a rolled curb is installed, a 6-inch (152 mm) wide red stripe applied the full length of the fire apparatus access road shall be installed.

503.5.2.3 Fire lane marking – Option 1. Fire lane marking Option 1 shall meet all the following:

1. A sign meeting the requirements of Section 503.5.2.1 shall be installed a maximum of 15 feet (4572 mm) from the beginning and end of the fire

apparatus access road.

2. FIRE LANE-NO PARKING signs will be installed between the beginning and ending sign at a spacing not to exceed 75 feet (22860 mm).

503.5.2.4 Fire lane marking – Option 2. Fire lane marking Option 2 shall meet all the following:

1. A sign meeting the requirements of Section 503.5.2.1 with a “BEGIN” plaque shall be installed a maximum of 15 feet (4572 mm) from the beginning of the fire apparatus access road.
2. The curb or lane edge adjacent to the fire apparatus access road shall be painted in accordance with Section 503.5.2.2.
3. A sign meeting the requirements of Section 503.5.2.1 with a “END” plaque shall be installed a maximum of 15 feet (4572 mm) from the end of the fire apparatus access road.

503.5.2.5 Fire lane marking – Option 3. Fire lane marking Option 3 shall meet all the following:

1. A sign meeting the requirements of Section 503.5.2.1 shall be installed a maximum of 15 feet (4572 mm) from the beginning and end of the fire apparatus access road.
2. Additional FIRE LANE-NO PARKING signs will be required between the beginning and ending sign at a spacing not to exceed 75 feet (22860 mm).
3. The curb or lane edge adjacent to the fire apparatus access road shall be painted in accordance with Section 503.5.2.2.

503.5.2.6 Fire lane marking – Fire Hydrant. Fire lane marking – Fire Hydrant shall meet all the following:

1. A sign meeting the requirements of Section 503.5.2.1 with a “BEGIN” plaque shall be installed at the beginning of the prohibited parking area, and
2. A sign meeting the requirements of Section 503.5.2.1 with a “END” plaque shall be installed at the end of the prohibited parking area.

503.5.2.7 Enhanced marking. The fire marshal is authorized to require new and existing fire lanes to be enhanced with additional markings to improve the identification of fire apparatus access roads. Enhanced markings shall be in accordance with Sections 503.5.2.7.1 through 503.5.2.7.3 or other fire marshal approved method.

503.5.2.7.1 Stenciling. When required, the stenciling shall state “FIRE LANE – NO PARKING.” Lettering shall be white and shall be a minimum of 3 inches (76 mm) high with ½ inch (13 mm) brush stroke. Stenciling shall be applied at approved locations to the face of curbs and top of stripes meeting the requirements of Section 503.5.2.2.

503.5.2.7.2 Signs. When required, approved signs in accordance with Section 503.5.2.1 will be installed at required locations.

503.5.2.7.3 Striping. When required, diagonal striping across the width of the fire

lane will be installed in an approved configuration.

503.6 Obstruction of fire apparatus access roads. Fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles. The minimum widths and clearances established in Sections 503.2.1 and 503.2.2 shall always be maintained.

503.6.1. Traffic calming devices. Traffic calming devices shall be prohibited unless approved by the fire marshal.

503.7 Required gates or barricades. The fire marshal is authorized to require the installation and maintenance of gates or other approved barricades across fire apparatus access roads, trails or other accessways, not including public streets, alleys or highways in accordance with this section and Section 515. Electric gate operators, where provided, shall be listed in accordance with UL 325. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F 2200

503.7.1 Secured gates and barricades. Where required, gates and barricades shall be secured in an approved manner. Roads, trails and other accessways that have been closed and obstructed in the manner prescribed by Section 503.7 shall not be trespassed on or used unless authorized by the owner and the fire marshal.

Exception: The restriction on use shall not apply to public officers acting within the scope of duty.

503.7.2 Security gates. The installation of security gates across a fire apparatus access road shall be approved by the fire marshal. Where security gates are installed, they shall have an approved means of emergency operation. The security gates and the emergency operation shall always be maintained operational. Electric gate operators, where provided, shall be listed in accordance with UL 325. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F2200.

503.7.3. Chains. Chains alone across a fire apparatus access road is prohibited.

SECTION 504 COMMERCIAL AND INDUSTRIAL DEVELOPMENTS

504.1 Buildings exceeding three stories or 30 feet in height. Buildings or facilities exceeding 30 feet (9144 mm) or three stories in height shall have at least two means of fire apparatus access for each structure.

504.1.1 Underground structures. Underground structures within 10 feet of a fire apparatus access roads must meet the additional requirement of Section 505.5.

504.2 Buildings exceeding 62,000 square feet in area. Buildings or facilities having a gross building area of more than 62,000 square feet (5760 m2) shall be provided with two separate and approved fire apparatus access roads.

Exception: Projects having a gross building area of up to 124,000 square feet (11,520 m2) that have a single approved fire apparatus access road when all buildings are equipped throughout with approved automatic sprinkler systems.

504.3 Remoteness. Where two fire apparatus access roads are required, they shall be placed a distance apart equal to not less than one half of the length of the maximum overall diagonal dimension of the lot or area to be served, measured in a straight line between accesses.

SECTION 505 AERIAL FIRE APPARATUS ACCESS ROADS

505.1 Where required. Where the vertical distance between the fire apparatus access road and the highest roof surface exceeds 30 feet (9144 mm), an approved aerial fire apparatus access road shall be provided. For purposes of this section, the highest roof surface shall be determined by measurement to the eave of a pitched roof, the intersection of the roof to the exterior wall, or the top of parapet walls, whichever is greater.

505.2 Width. Aerial fire apparatus access roads shall have a minimum unobstructed width of 26 feet (7925 mm), exclusive of shoulders, in the immediate vicinity of the building or portion thereof.

505.3 Proximity to building. At least one of the required access routes meeting this condition shall be located within a minimum of 15 feet (4572 mm) and a maximum of 30 feet (9144 mm) from the building and shall be positioned parallel to one entire side of the building. The side of the building on which the aerial fire apparatus access road is positioned shall be approved by the fire marshal.

505.4 Obstructions. Overhead utility and power lines shall not be located over the aerial fire apparatus access road or between the aerial fire apparatus road and the building. Other obstructions shall be permitted to be placed with the approval of the fire marshal.

505.5 Point Load. Aerial fire apparatus access roads shall be designed with a surface capable of an outrigger point load of 44,928 pounds over an area of 24 inches by 24 inches square (4.0 square feet).

SECTION 506 MULTIPLE-FAMILY RESIDENTIAL DEVELOPMENTS

506.1 Projects having more than 100 dwelling units. Multiple-family residential projects having more than 100 dwelling units shall be equipped throughout with two separate and approved fire apparatus access roads.

Exception: Projects having up to 200 dwelling units may have a single approved fire apparatus access road when all buildings, including nonresidential occupancies, are equipped throughout with approved automatic sprinkler systems installed in accordance with Section 903.3.1.1.

506.2 Projects having more than 200 dwelling units. Multiple-family residential projects having more than 200 dwelling units shall be provided with two separate and approved fire apparatus access roads regardless of whether they are equipped with an approved automatic sprinkler system.

506.3 Remoteness. Where two fire apparatus access roads are required, they shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the property or area to be served, measured in a straight line between accesses.

SECTION 507 ONE- OR TWO-FAMILY DWELLING RESIDENTIAL DEVELOPMENTS

507.1 One- or two-family dwelling residential developments. Developments of one- or two-family dwellings where the number of dwelling units exceeds 30 shall be provided with two separate and approved fire apparatus access roads.

Exceptions:

1. Where there are more than 30 dwelling units on a single public or private fire apparatus access road and all dwelling units are equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.3 of the International Fire Code, access from two directions shall not be required.
2. The number of dwelling units on a single fire apparatus access road shall not be increased unless fire apparatus access roads will connect with future development, as determined by the fire marshal.

507.2 Remoteness. Where two fire apparatus access roads are required, they shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the property or area to be served, measured in a straight line between accesses.

SECTION 508 ACCESS TO BUILDING OPENINGS AND ROOFS

508.1 Required access. Exterior doors and openings required by this code or the International Building Code shall be maintained readily accessible for emergency access by the fire department. An approved access walkway leading from fire apparatus access roads to exterior openings shall be provided.

508.2 Maintenance of exterior doors and openings. Exterior doors and their function shall not be eliminated without prior approval. Exterior doors that have been rendered nonfunctional and that retain a functional door exterior appearance shall have a sign affixed to the exterior side of the door with the words THIS DOOR BLOCKED. The sign

shall consist of letters having a principal stroke of not less than 3/4 inch (19.1 mm) wide and not less than 6 inches (152 mm) high on a contrasting background. Required fire department access doors shall not be obstructed or eliminated. Exit and exit access doors shall comply with Chapter 10. Access doors for high-piled combustible storage shall comply with Section 3206.6.1.

508.3 Stairway access to roof. New buildings four or more stories above grade plane, except those with a roof slope greater than four units vertical in 12 units horizontal (33.3-percent slope), shall be provided with a stairway to the roof. Stairway access to the roof shall be in accordance with Section 1011.12. Such stairway shall be marked at street and floor levels, in an approved location, with an approved sign in accordance with Section 508.3.1. Where roofs are used for roof gardens or for other purposes, stairways shall be provided as required for such occupancy classification.

508.3.1 Signs. Stairway access sign design shall include the following:

- a. The sign face shall be 12-inch by 14-inch and fabricated from .080 aluminum sheet with 1.5-inch radius corners,
- b. Font style used shall be Handel Gothic BT Capital fonts,
- c. The design face shall have a white 3M Diamond Grade Reflective Sheeting (DG³ 4090 Series or equivalent) applied as a background to the aluminum plates,
- d. Lettering/numbering shall be high performance, non-reflective, cuttable vinyl (3M 7725 Series or equivalent) inverse cut to allow white reflective background to show through,
- e. All sign imaging shall follow the reflective sheeting manufacturer's match component system,
- f. Signs shall contain the following information;
 1. Stairway name, 1.25-inch by .25-inch lettering,
 2. "STANDPIPE" or "NO STANDPIPE", 1-inch by 3/16-inch lettering,
 3. Floor letter or number, 5-inch by 7/8-inch lettering,
 4. Floor range, 1.25-inch by 3/16-inch lettering, and
 5. Braille ADA information, if required by the others.

SECTION 509 PREMISES IDENTIFICATION

509.1 Address identification. New and existing buildings shall have approved address numbers, building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. Where required by the fire marshal, address numbers shall be provided in additional approved locations to facilitate emergency response. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall be a minimum of 4 inches (101.6 mm) high with a minimum stroke width of 5/8-inch (15.87 mm) on a contrasting background. Where access is by means of a private road and the building cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the structure. Address numbers shall be maintained.

509.2 Premise identification for residential occupancies. Premise identification for residential occupancies shall be in accordance with Section 505.

509.2.1 Single-family homes. The address numbers for single-family homes that are Group R-3 occupancies shall be a minimum of 4 inches (101.6 mm) high, with a minimum 5/8-inch (15.87 mm) brush stroke on a contrasting background.

509.2.2 Address marking of multifamily residential occupancies other than R-3 occupancies. The address, individual building, spread, and dwelling numbers in other than Group R-3 occupancies shall be in accordance with Sections 509.2.2.1 through 509.2.2.6

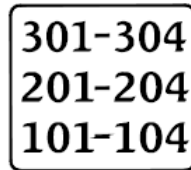
509.2.2.1 Building or site address. The street address numbers shall be a minimum of 18 inches (457 mm) high with a minimum 3-inch (76 mm) wide brush stroke on contrasting color. For buildings less than 100 feet (30 480 mm) long, a minimum of one address shall be provided. For buildings greater than 100 feet (30480 mm) in length, the address is required in a minimum of two places. Each building in a complex shall display its own identification.

509.2.2.2 Building identification numbers. Each building shall display its specific alphabetical or numerical designation which must be clearly visible from the fire apparatus access road. The building identification numbers shall be a minimum of 18 inches (457 mm) high with a minimum 3-inch (76 mm) brush stroke on contrasting color. For buildings less than 100 feet (30 480 mm) long, a minimum of one building identification number per building shall be provided.

509.2.2.3 Spread numbers. Spread numbers shall be provided adjacent to the building identification numbers to indicate the apartment or unit numbers by floors in the building. Spread numbers shall be a minimum of 7 inches (178 mm) high with a 1-inch (25 mm) brush stroke on a contrasting background.

509.2.2.4 Unit identification at entrances. When more than one dwelling or unit is accessed from an entrance, a spread plate is required. The spread numbers are required to be internally or externally illuminated.

Figure 509.2.2.4
Unit Entrance Spread Sign – Example



509.2.2.5 Apartment or unit numbers. Individual apartment or unit numbers shall be a minimum of 4 inches (102 mm) high with a minimum 5/8-inch (15.87 mm) brush stroke on a contrasting background.

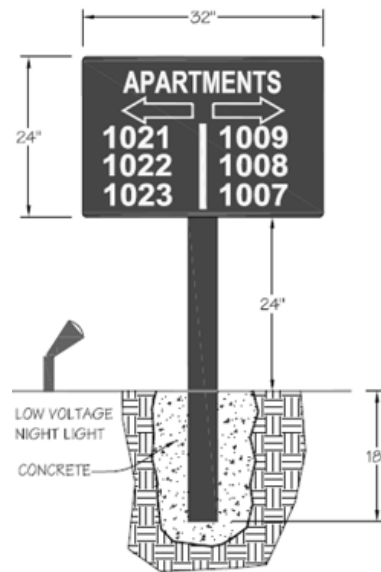
509.2.2.6 Additional unit identification signs. Where a building is not visible from the fire apparatus access road, an approved directional sign indicating the location of the unit is required in accordance with the following;

509.2.2.6.1 Signs. Directional sign design shall include the following;

- a. The sign face shall be 32-inch by 24-inch and fabricated from .080 aluminum sheet with 1.5-inch radius corners,
- b. Font style used shall be Arial Black font. Fonts used for addressing must be legible and easy to read. The use of different fonts must be approved by the fire marshal,
- c. The design face shall have a white 3M Diamond Grade Reflective Sheeting (DG³ 4090 Series or equivalent) applied as a background to the aluminum plates,
- d. Lettering/numbering shall be high performance, non-reflective, cuttable vinyl (3M 1170 Series or equivalent) inverse cut to allow white reflective background to show through, and

- e. All sign imaging shall follow the reflective sheeting manufacturer's match component system.

Figure 509.2.2.6
Apartment Directional Sign



509.3 Premise identification for commercial buildings. Commercial buildings less than 200 feet (60 960 mm) long and 100 feet (30 480 mm) from the road shall be identified with building address numbers that are a minimum of 18 inches (457 mm) high with a minimum 3-inch (76 mm) brush stroke on contrasting background. The address shall be visible from all access directions.

When buildings are more than 200 feet (60 960 mm) long or set back from the road more than 100 feet (30 480 mm) they shall be identified with building address numbers that are a minimum of 24 inches (610 mm) high with a 4-inch (102 mm) brush stroke of a contrasting color.

When buildings are greater than 500 feet (152 400 mm) in length, the number and address shall be provided in a minimum of two locations. When buildings have multiple access points, numbers and addresses shall be provided at each access point.

509.3.1 Multitenant commercial buildings. Individual tenant spaces in multitenant commercial buildings shall have their address or suite number posted at the front entrance and rear access doors. This number shall be a minimum of 6 inches (152 mm) high with a 1-inch (25 mm) brush stroke on a contrasting background.

509.3.2 Multiple buildings at a single address. Each building shall display its specific alphabetical or numerical designation that shall be clearly visible from the fire apparatus access road (see Section 509.3 for minimum letter height and brush stroke requirements).

509.4 Address directories.

509.4.1 When required. An approved address directory shall be provided at properties containing any one of the following:

1. More than one principal building.
2. Buildings with unit identification numbers randomly numbered or sequenced.
3. When, in the opinion of the Fire Marshal, emergency response may be delayed due to the physical layout of the complex.

509.4.2 Specifications. Address directories shall be constructed and installed in accordance with this section.

509.4.3 Dimensions. The number of buildings in the complex shall determine the minimum dimensions of the address directory. Minimum address directory dimensions shall be as follows:

1. Complexes containing 12 or fewer buildings require a minimum 3 by 3 feet (914 by 914 mm) [9 square feet (0.836 m²)] site directory.
2. Complexes containing 13 to 30 buildings require a minimum 4 by 4 feet (1219 by 1219 mm) [16 square feet (1.486 m²)] site directory.
3. Complexes containing 31 or more buildings require a minimum 5 by 5 feet (1524 by 1524 mm) [(25 square feet (2.323 m²)] site directory. Stanchions or supports shall not be included in the 5 by 5 feet required size of the address directory.

509.4.4 Framing. Framing materials shall not encroach upon the address directory face by more than 11/2 inches (39 mm).

509.4.5 Protection. The address directory shall be protected against vandalism and disfigurement by a clear polycarbonate cover, which shall have a minimum thickness of 1/8 inch (3.17 mm) and be sealed to protect the address directory from weather.

509.4.6 Illumination. Address directories shall be internally illuminated utilizing white light.

509.4.7 Installation requirements. Support posts or stanchions shall be set in concrete. Directories with dimensions of 3 by 3 feet (914 by 914 mm) [9 square feet (0.836 m²)] shall be mounted with the bottom of the address directory not less than 36 inches (914 mm) above grade.

Address directories with dimensions of 4 by 4 feet (1219 by 1219 mm) [16 square feet (1.486 m²)] and 5 by 5 feet (1524 by 1524 mm) [25 square feet (2.32 m²)] shall be mounted with the bottom of the address directory not less than 12 inches (305 mm) above grade.

509.4.8 Depictions. All depictions must be clear, easily understood, and legible at 8 feet (2438 mm). The address directory shall depict structures, building numbers, units, apartment or space numbers, tennis courts, swimming pools, elevators, driveways, streets, laundry rooms, fire hydrants, fire apparatus access roads and other features as determined by the fire department. The depictions shall comply with the following:

1. Address directories shall be a dark print on a contrasting light background. Buildings shown on the address directory shall not be the same color as other features indicated on the address directory.
2. The name and address of the complex are required and shall not exceed 10 percent of the total size of the site directory.
3. Swimming pools, canals, and waterway areas shall be translucent blue.
4. Tennis courts shall be translucent green.
5. Fire hydrants shall be a 1/4-inch (6.35 mm) diameter black circle filled in with a translucent yellow center. The abbreviation "HYD" must be affixed by the location of the fire hydrant on the address directory.
6. The address directory shall be properly oriented to the viewer with a red dot that is 1 inch (25 mm) in diameter, that is with the words "YOU ARE HERE" affixed at the appropriate location on the address directory.
7. A north arrow shall be included in the upper-right quadrant of the address Directory. The arrow shall be a minimum of 3 inches (76 mm) in length with a minimum 1-inch (25 mm) brush stroke.

8. Interior fire apparatus access roads, where provided, shall be marked on the address directory with red crosshatching.

509.4.9 Setbacks. The address directory shall be installed on the occupancy's property, at locations approved by the fire department. Placement of the address directory shall be as follows:

1. The address directory shall be set back from the street or curbing at least 25 feet (7620 mm) to allow emergency vehicles to clear the public right-of-way.
2. Shall not exceed 4 feet (1219 mm) from the edge of the fire apparatus access road facing the direction of oncoming traffic.
3. Shall not conflict with traffic visibility zones as provided for by other ordinances.
4. Shall be immediately visible and free from obstructions including architectural design and landscaping.

509.4.10 Prohibitions. Information such as advertising or additional artwork shall not be allowed on the address directory.

509.4.11 Maintenance. All premise identification shall be maintained clearly visible and free from obstructions, including landscaping.

509.5 Street or road signs. Streets and roads shall be identified with approved signs. Temporary signs shall be installed at each street intersection when construction of new roadways allows passage by vehicles. Signs shall be of an approved size, weather resistant and be maintained until replaced by permanent signs.

SECTION 510 KEY BOXES

510.1 Where required. Where access to or within a structure or an area is restricted because of secured openings or where immediate access is necessary for lifesaving or fire-fighting purposes, the fire marshal is authorized to require a key box to be installed in an approved location. The key box shall be of an approved type listed in accordance with UL 1037, and shall contain keys to gain necessary access as required by the fire marshal.

When a building, other than a single-family residence or Group R-3 occupancies, is monitored off-site for security, fire, or other service that notifies the fire department, a key box shall be installed in accordance with this Section.

Card access, magnetic locks and electronic type locks on ingress/egress control doors that are required for fire fighter access within suites and buildings are required to unlock upon fire alarm, other than manual pulls. Electric strikes shall release unless keys are provided in accordance with Section 510.1.5 and free exit is provided in accordance with Section 1008.1.3.4.

510.1.1 Location. Key boxes shall be located as follows:

1. Adjacent to the main entry of the *building*.
2. Adjacent to the exterior entrance door to each exterior fire riser room or area.
3. Adjacent to the exterior entrance door to each fire pump room.
4. Adjacent to the exterior entrance door to the fire command center, if applicable.
5. Adjacent to the exterior entrance door to each electrical equipment room provided with a service disconnect.
6. Adjacent to exterior building access doors serving storage arrays so travel distance to a key box does not

exceed 100 feet.

7. Adjacent to commercial pool enclosure entrance(s).
8. Adjacent to each exterior stairway access door.
9. As required on access gates.
10. Additional key boxes may be required by the *fire marshal* based on the size, layout, and use of the building.

510.1.2 Height. The key box shall be mounted about 5 feet (1524 mm) above grade.

510.1.3 Visibility. The key box shall be illuminated to be immediately visible to fire personnel from the emergency apparatus. Posts, fences, vehicles, growth, trash, storage, and other materials shall not be placed or kept near key boxes in a manner that would prevent the key boxes from being immediately discernible.

510.1.4 Marking of keys for fire department access. Each key shall be provided with a water-resistant tag and be color coded to identify its function as follows:

1. Green for access gates.
2. Yellow for elevators.
3. Red for the fire command center.
4. Blue for keys related to water access (e.g., gates to swimming pools).
5. White for master keys.

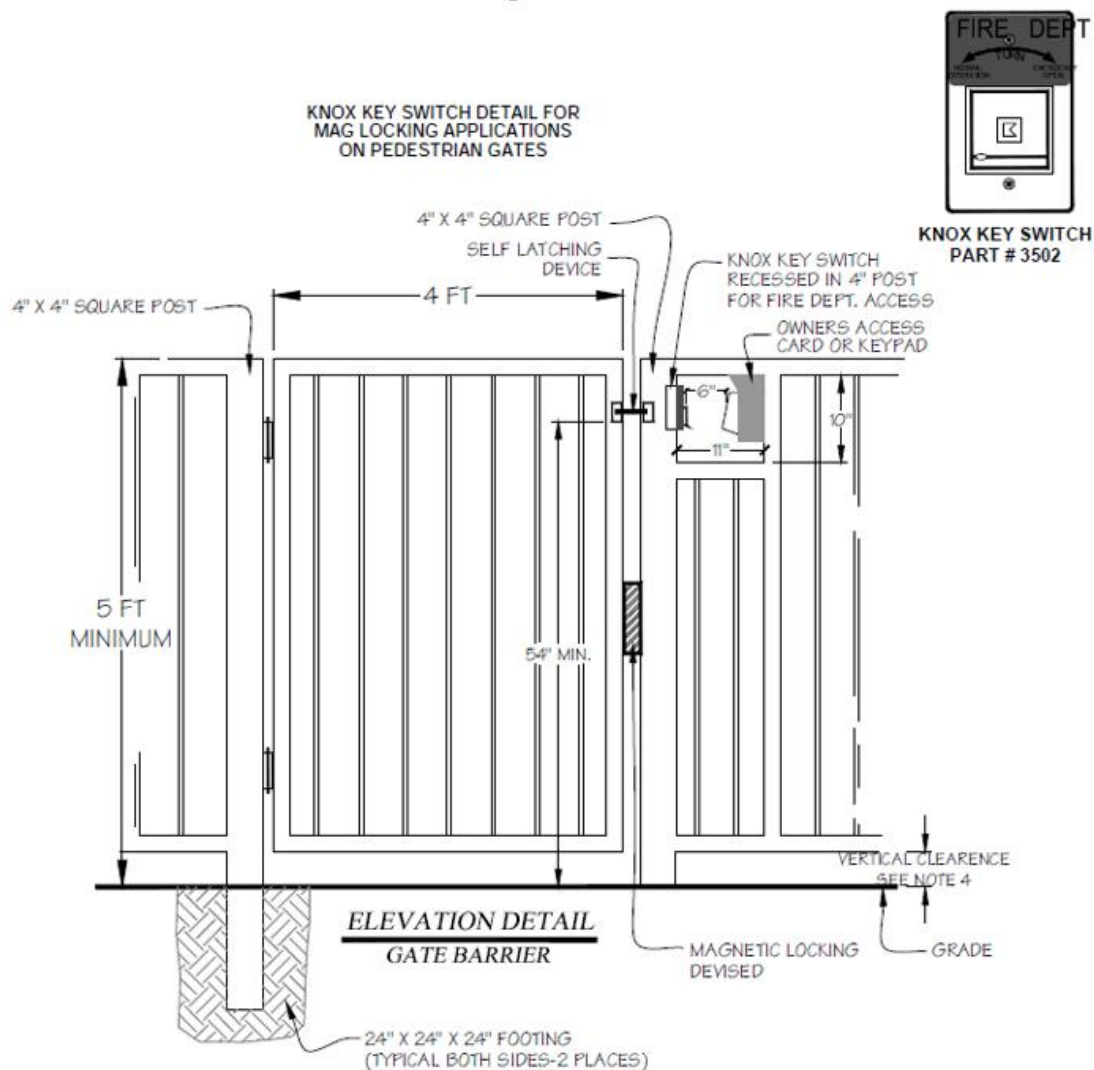
Keys that are required to access secured areas for a function not listed above shall be provided with water resistant tags. The tags shall be marked in a contrasting color with the key's function and room number. The terminology used to mark the tags shall provide immediate understanding as to the key's function.

510.1.5 Number of sets of keys. All keys shall be provided in full sets; a minimum of one set for access shall be provided. Key boxes at stairways shall provide two sets per box. Buildings with fire service elevators shall provide three sets per fire service designated elevator.

510.2 Locks. An approved lock shall be installed on gates or similar barriers when required by the fire marshal.

510.3 Swimming pool gates. All swimming pool pedestrian access gates in multifamily and commercial occupancies that are locked shall be provided with an approved key box in accordance with Section 515.1.3.1. Where a card reader system is installed, a key box with toggle switch or gate switch must be installed in accordance with Figure 510.3.

Figure 510.3
Swimming Pool Gate Detail



510.4 Key boxes for non-standardized fire service elevator keys. Key boxes provided for non-standardized fire service elevator keys shall comply with Section 510.1 and all the following:

1. The key box shall be compatible with an existing rapid entry key box system in use in the jurisdiction and approved by the fire marshal.
2. The front cover shall be permanently labeled with the words "Fire Department Use Only—Elevator Keys."
3. The key box shall be mounted at each elevator bank at the lobby nearest to the lowest level of fire department access.
4. The key box shall be mounted 5 feet 6 inches (1676 mm) above the finished floor to the right side of the elevator bank.
5. Contents of the key box are limited to fire service elevator keys. Additional elevator access tools, keys and information pertinent to emergency planning or elevator access shall be permitted where authorized by the fire marshal.
6. In buildings with two or more elevator banks, a single key box shall be permitted to be used where such elevator

banks are separated by not more than 30 feet (9144 mm). Additional key boxes shall be provided for each individual elevator or elevator bank separated by more than 30 feet (9144 mm).

Exception: A single key box shall be permitted to be located adjacent to a fire command center or the nonstandard fire service elevator key shall be permitted to be secured in a key box used for other purposes and located in accordance with Section 510.1.

510.5 Key box maintenance. The operator of the building shall immediately notify the fire marshal and provide the new key where a lock is changed or rekeyed. The key to such lock shall be secured in the key box.

510.6 Retroactive upgrade required. Existing key boxes, padlocks, and switches which are inconsistent with the approved Knox Company keyway shall be upgraded as required by the *fire marshal*.

SECTION 511 FIRE PROTECTION WATER SUPPLIES

511.1 Required water supply. An approved water supply capable of supplying the required fire flow for fire protection shall be provided to premises upon which facilities, buildings or portions of buildings are hereafter constructed or moved into or within the jurisdiction.

511.2 Type of water supply. A water supply shall consist of reservoirs, pressure tanks, elevated tanks, water mains or other fixed systems capable of providing the required fire flow.

511.2.1 Private fire service mains. Private fire service mains and appurtenances shall be installed in accordance with the Maricopa Association of Governments Standard Specifications and Details for Public Works; the City of Avondale Supplement to Maricopa Association of Governments Standard Specifications and Details for Public Works; NFPA 24, and this section.

511.2.1.1 Hydraulic calculations. Calculations shall be submitted to verify the private fire service main(s) will provide the minimum required fire flow, as determined by Section 511.3, to the hydraulically most demanding on-site hydrants with the water supply that is available to the system.

511.2.1.2 System flow requirement. The hydraulically most-demanding hydrant will be assigned a minimum flow rate of 1,500-gpm (5678 L). An additional 1,000 gpm (4546 L), or remainder of the required fire flow, as determined by Section 507.3, shall be added at each successive hydrant until the minimum required fire flow has been reached.

511.2.1.3 System pressure requirement. A minimum of 20 psi (138 kPa) residual pressure shall be maintained in the system. All pressure losses in the system including friction loss through pipe and fittings and changes in elevation shall be accounted for from the hydraulically most demanding hydrant(s) back to the location of the water flow test that was used to determine the water supply available to supply the new private hydrants and mains.

511.2.1.4 Method for determining friction loss. Friction loss through pipe and fittings shall be determined using the Hazen-Williams formula or other approved hydraulic formula. The Hazen-Williams formula is as follows:

$$P = 4.52 \times Q^{1.85} / C^{1.85} \times D^{4.87}$$

Where:

P = friction loss in psig per foot of pipe.

Q = flow in gpm.

C = Hazen-Williams co-efficient of roughness, friction loss coefficient, pipe roughness coefficient.

D = actual internal diameter of the pipe in inches.

511.2.1.5 Backflow prevention assembly. The pressure loss through any backflow prevention assembly installed on the system shall be included in the hydraulic calculations. The model and size of the backflow prevention assembly shall be noted on the plans.

511.2.1.6 Minimum Diameter. Fire mains and appurtenances shall be sized to accommodate the calculated fire flow but shall not be less than 6 inches (152 mm) in diameter. Dead-end fire mains shall not be less than 8 inches (203 mm) in diameter unless calculations determine otherwise.

511.2.1.7 Private fire service main looping. Private fire service mains are required to be looped with a minimum of two separate connections to the public water system under the following conditions:

1. Water main exceeds 100 feet for 6" lines.
2. Water main exceeds 400 feet for 8" lines.
3. Water mains serving more than one fire hydrant.
4. Water mains serving a building over 52,000 sq. ft.
5. Water mains serving a building over two stories in height.
6. Water mains serving more than one commercial building.
7. Water mains serving over 30 single-family residential units.
8. Water mains serving over 200 multi-family residential units.
9. As otherwise required by the fire marshal.

511.2.1.8 Private fire service main connections. Where two water connections are required, they shall be placed a distance apart equal to not less than one half of the length of the maximum overall diagonal dimension of the property or area to be served, measured in a straight line between the water connections. Where two water connections are required, they shall be made to separate water lines where possible. Where the connections are made to the same water line a valve shall be in an approved location in between the connections to allow for one connection to provide fire protection while the second connection is being repaired.

511.2.1.9 Sectional valves. Sectional valves shall be provided to ensure minimal impairments to fire protection should the private fire service main require repair or alteration.

511.2.1.9.1 Locations. Each tee, cross, or other identified location will be provided with a valve.

511.2.1.9.2 Post Indicator Valve. Where underground sprinkler riser supply piping is run more than 5 feet (1524 mm) under the building, a Post Indicator Valve (PIV) shall be provided in an approved location adjacent to the foundation.

511.2.1.10 Fire Pumps. Fire pumps shall be supplied with a dedicated private fire service main.

511.2.2 Water tanks. Water tanks for private fire protection shall be installed in accordance with NFPA 22.

511.2.3 Inspection, testing and maintenance. Private fire service mains, appurtenances, fire hydrants, and water tanks shall be periodically inspected, tested and maintained in accordance with NFPA 25; records submitted in accordance with Section 901.6.3; and shall always be maintained in an operative condition and shall be repaired where defective. Additions, repairs, alterations and servicing shall comply with approved standards.

511.3 Fire flow. Fire flow requirements for buildings or portions of buildings and facilities shall be in accordance with this Section.

511.3.1 Definitions. For the purpose of this Chapter, certain terms are defined as follows:

FIRE-FLOW. The flow rate of a water supply, measured at 20 pounds per square inch (psi) (138 kPa) residual pressure, that is available for firefighting.

FIRE-FLOW CALCULATION AREA. The floor area, in square feet (m²), used to determine the required fire flow.

511.3.2 Modifications. The fire marshal is authorized to modify fire-flow requirements.

511.3.2.1 Decreases. The fire marshal is authorized to reduce the fire-flow requirements for isolated buildings or a group of buildings in rural areas or small communities where the development of full fire-flow requirements is impractical.

511.3.2.2 Increases. The fire marshal is authorized to increase the fire-flow requirements where conditions indicate an unusual susceptibility to group fires or conflagrations. An increase shall not be more than twice that required for the building under consideration.

511.3.2.3 Areas without water supply systems. For information regarding water supplies for fire-fighting purposes in rural and suburban areas in which adequate and reliable water supply systems do not exist, the fire marshal is authorized to utilize NFPA 1142 or the International Wildland-Urban Interface Code.

511.3.3 Fire-flow calculation area.

511.3.3.1 General. The fire-flow calculation area shall be the total floor area of all floor levels within the exterior walls, and under the horizontal projections of the roof of a building, except as modified in Section 511.3.3.3.

511.3.3.2 Area separation. Portions of buildings which are separated by fire walls without openings, constructed in accordance with the International Building Code, can be considered as separate fire-flow calculation areas.

511.3.3.3 Type IA and Type IB construction. The fire-flow calculation area of buildings constructed of Type IA and Type IB construction shall be the area of the three largest successive floors.

Exception: Fire-flow calculation area for open parking garages shall be determined by the area of the largest floor.

511.3.4 Fire-flow requirements for buildings

511.3.4.1 One- and two-family dwellings. The minimum fire-flow and flow duration requirements for one- and two-family dwellings will be in accordance with Sections 511.3.4.1.1 through 511.3.4.1.2.

511.3.4.1.1 One- and two-family dwellings not exceeding two stories in height and 3,600 square feet. The minimum fire-flow requirements for one- and two-family dwellings not exceeding two stories in height and 3,600 square feet shall be:

1. Where the distance between buildings exceed 10 feet, the required fire-flow is 1,000 gallons per minute for one hour, or
2. Where the distance between buildings is 0-10 feet, the required fire-flow is 1,500 gallons per minute for one hour.

Exceptions:

1. Where structures separated with a masonry wall with a height of six or more feet, the required fire-flow is 1,000 gallons per minute for one hour.
2. A reduction in required fire-flow of 50 percent, as approved, is allowed when the building is equipped with an approved automatic sprinkler system. The resulting fire-flow cannot be less than 1,000 gallon per minute for one hour.

511.3.4.1.2 One- and two-family dwellings exceeding two stories in height or 3,600 square

feet. Fire-flow and flow duration for dwellings exceeding two stories in height or having a fire-flow calculation area exceeding 3,600 square feet (3.44.5 m²) shall be 2,000 gallons per minute for two hours.

Exception: A reduction in required fire-flow of 50 percent, as approved, is allowed when the building is equipped with an approved automatic sprinkler system. The resulting fire-flow cannot be less than 1,000 gallon per minute for one hour.

511.3.4.2 Buildings other than one- and two-family dwellings. The minimum fire-flow and flow duration for buildings other than one- and two-family *dwellings* shall be as specified in Table 511.3.4.2.

Exception: A reduction in required fire-flow of up to 75 percent, as *approved*, is allowed when the building is protected throughout by an automatic fire sprinkler system designed for the hazard and installed in accordance with NFPA13, Standard for the Installation of Sprinkler Systems. The resulting fire-flow shall not be less than 1,500 gallons per minute (5678 L/min) for the prescribed duration as specified in Table 511.3.4.2.

Table 511.3.4.2

Minimum Fire-Flow and Flow Duration for Buildings Other Than One- and Two-Family Dwellings

FIRE-FLOW CALCULATION AREA (square feet)					FIRE-FLOW (gallons per minute) ^b	FLOW DURATION (hours)
Type IA and IB ^a	Type IIA and IIIA ^a	Type IV and V-A ^a	Type IIB and IIIB ^a	Type V-B ^a		
0-22,700	0-12,700	0-8,200	0-5,900	0-3,600	1,500	2
22,701-30,200	12,701-17,000	8,201-10,900	5,901-7,900	3,601-4,800	1,750	
30,201-38,700	17,001-21,800	10,901-12,900	7,901-9,800	4,801-6,200	2,000	
38,701-48,300	21,801-24,200	12,901-17,400	9,801-12,600	6,201-7,700	2,250	
48,301-59,000	24,201-33,200	17,401-21,300	12,601-15,400	7,701-9,400	2,500	
59,001-70,900	33,201-39,700	21,301-25,500	15,401-18,400	9,401-11,300	2,750	
70,901-83,700	39,701-47,100	25,501-30,100	18,401-21,800	11,301-13,400	3,000	3
83,701-97,700	47,101-54,900	30,101-35,200	21,801-25,900	13,401-15,600	3,250	
97,701-112,700	54,901-63,400	35,201-40,600	25,901-29,300	15,601-18,000	3,500	
112,701-128,700	63,401-72,400	40,601-46,400	29,301-33,500	18,001-20,600	3,750	
128,701-145,900	72,401-82,100	46,401-52,500	33,501-37,900	20,601-23,300	4,000	
145,901-164,200	82,101-92,400	52,501-59,100	37,901-42,700	23,301-26,300	4,250	
164,201-183,400	92,401-103,100	59,101-66,000	42,701-47,700	26,301-29,300	4,500	4
183,401-203,700	103,101-114,600	66,001-73,300	47,701-53,000	29,301-32,600	4,750	
203,701-225,200	114,601-126,700	73,301-81,100	53,001-58,600	32,601-36,000	5,000	
225,201-247,700	126,701-139,400	81,101-89,200	58,601-65,400	36,001-39,600	5,250	
247,701-271,200	139,401-152,600	89,201-97,700	65,401-70,600	39,601-43,400	5,500	
271,201-295,900	152,601-166,500	97,701-106,500	70,601-77,000	43,401-47,400	5,750	
295,901-Greater	166,501-Greater	106,501-115,800	77,001-83,700	47,401-51,500	6,000	
—	—	115,801-125,500	83,701-90,600	51,501-55,700	6,250	
—	—	125,501-135,500	90,601-97,900	55,701-60,200	6,500	
—	—	135,501-145,800	97,901-106,800	60,201-64,800	6,750	
—	—	145,801-156,700	106,801-113,200	64,801-69,600	7,000	
—	—	156,701-167,900	113,201-121,300	69,601-74,600	7,250	
—	—	167,901-179,400	121,301-129,600	74,601-79,800	7,500	
—	—	179,401-191,400	129,601-138,300	79,801-85,100	7,750	
—	—	191,401-Greater	138,301-Greater	85,101-Greater	8,000	

For SI: 1 square foot = 0.0929 m², 1 gallon per minute = 3.785 L/m, 1 pound per square inch = 6.895 kPa.

a. Types of construction are based on the *International Building Code*.

b. Measured at 20 psi residual pressure.

511.3.4.3 Water supply for buildings equipped with an automatic sprinkler system. For buildings equipped with an approved automatic sprinkler system, the water supply shall be capable of providing the greater of:

1. The automatic sprinkler system demand, including hose stream allowance.
2. The required fire-flow.

511.4 Water supply test. The fire marshal shall be notified prior to the water supply test. Water supply tests shall be witnessed by the fire marshal. Test documentation, in an approved format, shall be provided to the fire marshal.

511.4.1 Water flow test location. The location of hydrants used to determine the available water supply shall be shown on the plans. The plans shall provide detail on how the private fire service main is connected to the city main. The size and location of the city main in the street and whether the main is dead-end or circulating shall be shown on the plans. If the main is a dead-end, the direction and distance to the nearest circulating main shall be noted on the plans. The elevation of the static and residual pressure test gauge with relation to the on-site hydrants shall be noted on the plans.

511.4.2 Quantity. The quantity of water discharged during the test will be indicated, in gallons, on the water supply test documentation.

511.4.3 Design safety factor. The water flow test results shall be adjusted as noted in Sections 511.4.4 and 511.4.5 to account for seasonal and daily flow calculations in the water supply system.

511.4.4 Static pressure equal to or more than 90 psi. When the static pressure is over 90 pounds (621 kPa) per square inch (psi) the maximum design static pressure will be 80 psi (552 kPa) regardless of the actual test pressure. The slope of the original design curve shall be used even though the design pressure is reduced to 80 psi (552 kPa).

511.4.5 Static pressure less than or equal to 90 psi. When the recorded static pressure is less than or equal to 90 psi (621 kPa), the system design shall include a minimum 10 psi (69 kPa) safety factor between the system flow and pressure demand and the available water supply.

511.4.6 Water supply data. Water supply test information for public mains shall be obtained within 180 days of plan submittal.

511.4.7 Water Discharged. The quantity of water, in gallons, discharged from the water system must be indicated on the water test report.

511.5 Fire hydrant systems. Fire hydrant systems shall comply with Sections 511.5.1 through 511.5.1.9.

511.5.1 Where required. Where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than 400 feet (122 m) from a hydrant on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains shall be provided where required by the fire marshal.

Exceptions:

1. For structures designed and constructed in accordance with the International Residential Code, Group R-3, and Group U occupancies, the distance requirement shall be 600 feet (183 m).
2. For buildings equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1, the distance requirement shall be 600 feet (183 m).

511.5.1.1 Hydrant for standpipe systems. Buildings equipped with a standpipe system installed in accordance with Section 905 shall have a fire hydrant within 100 feet (30 480 mm) of the fire department connections.

Exception: The distance shall be permitted to exceed 100 feet (30 480 mm) where approved by the fire marshal.

511.5.1.2 Maximum distance. The maximum distance to a fire hydrant, from any point of a fire apparatus access road, shall not exceed 150 feet, as measured along the roadway.

Exception: The maximum distance to a fire hydrant, from any point of a fire apparatus access road serving single-family residential developments, shall not exceed 250 feet, as measured along the roadway.

511.5.1.3 Hydrant spacing. Fire hydrants shall be spaced approximately 500 feet (152 400mm) apart in single-family residential developments and shall be approximately 300 feet (91 440mm) apart in all other development types. The distance between hydrants shall be measured along the path of the fire apparatus access road.

511.5.1.3.1 Roads separated by medians. Where streets are provided with median dividers that cannot be crossed by fire fighters pulling hose lines, or where streets are provided with four or more traffic lanes hydrant spacing shall be provided on each side of the street and be arranged on an alternating basis.

511.5.1.4 First new hydrant. The first new fire hydrant shall be located at the street intersection or at the main entrance(s) into an apartment complex or commercial development. Additional hydrants shall be spaced per section 511.5.1.4.

511.5.1.5 Side of road. New hydrants shall be located on the right-hand (passenger) side of the fire apparatus road

511.5.1.6 Distance from road. Fire hydrants shall be located not less than 1 foot (305 mm) and not more than 6 feet (1829 mm) from the back of the curb or shoulder of the private fire apparatus access road or other vehicle access point. The largest outlet on the hydrant shall face the access road.

511.5.1.7 Reflective markers. Blue 4-inch by 4-inch DOT approved retroreflective reflectors shall be used as a method of identifying fire hydrant locations. For proper placement, refer to City of Avondale Supplement to Maricopa Association of Governments Standard Specifications and Details for Public Works or as directed by the fire marshal.

511.5.1.8 Parking areas. In open-air, on-grade parking areas, at least one fire hydrant shall be located within 600 feet (182 800 mm) of all areas.

511.5.1.9 Transportation hazards. Where new water mains are extended along streets where hydrants are not needed for protection of structures or similar fire problems, fire hydrants shall be provided at spacing not to exceed 1,000 feet to provide for transportation hazards.

511.5.2 Hydrant specifications. Hydrant installations shall comply with Sections 511.5.2.1 through 507.5.2.9.

511.5.2.1 Type. All fire hydrants shall be wet barrel as defined by AWWA M17 and specified by the City of Avondale Supplement to Maricopa Association of Governments Standard Specifications and Details for Public Works Construction. New or replacement fire hydrants shall be Clow Model #860 wet barrel hydrant or equivalent with LBI Model #400 breakaway check valve or equivalent. Fire hydrants shall have two 2 ½ inch outlets and one 4 ½ inch outlet.

Exceptions:

1. Fire hydrants installed in the Liberty Water District are required to be dry barrel hydrants in accordance with Liberty Water District specifications.
2. As required by the fire marshal.

511.5.2.2 Threads. Fire hydrants shall be provided with National Standard thread and comply with the Maricopa Association of Governments Standard Specifications and Details for Public Works.

511.5.2.3 Height. Fire hydrants shall be installed so that the centerline of the lowest outlet is not less than 18 inches (457 mm) above grade and the highest outlet does not exceed 24 inches (610 mm) above grade and comply with the Maricopa Association of Governments Standard Specifications and Details for Public Works.

511.5.2.4 Color of hydrants. Private fire hydrants shall be OSHA Safety Red or equivalent in color. Exterior coatings for new hydrants shall be factory-applied enamel, or equivalent factory-applied coating. The exterior coatings shall be maintained as required.

511.5.3 Obstruction. Unobstructed access to fire hydrants shall always be maintained. The fire department shall not be deterred or hindered from gaining immediate access to fire protection equipment or fire hydrants.

511.5.4 Clear space around hydrants. A 3-foot (914 mm) clear space shall be maintained around the circumference of fire hydrants, except as otherwise required or approved.

511.5.5 Physical protection. Where fire hydrants are subject to impact by a motor vehicle, guard posts or other approved means shall comply with Section 312.

SECTION 512 FIRE COMMAND CENTER

512.1 General. Where required by other sections of this code and in all buildings classified as high-rise buildings by the International Building Code, a fire command center for fire department operations shall be provided and shall comply with Sections 512.1.1 through 512.1.6.

512.1.1 Location and access. The location and accessibility of the fire command center shall be approved by the fire marshal.

512.1.2 Separation. The fire command center shall be separated from the remainder of the building by not less than a 1-hour fire barrier constructed in accordance with Section 707 of the International Building Code or horizontal assembly constructed in accordance with Section 711 of the International Building Code, or both.

512.1.3 Size. The fire command center shall be not less 0.015 percent of the total building area of the facility served or 200 square feet (19 m²) in area, whichever is greater, with a minimum dimension of 0.7 times the square root of the room area or 10 feet (3048 mm), whichever is greater.

512.1.4 Layout approval. A layout of the fire command center and all features required by this section to be contained therein shall be submitted for approval prior to installation.

512.1.5 Storage. Storage unrelated to operation of the fire command center shall be prohibited.

512.1.6 Required features. The fire command center shall comply with NFPA 72 and shall contain the following features:

1. The emergency voice/alarm communication system control unit.
2. The fire department communications system.
3. Fire detection and alarm system annunciator.
4. Annunciator unit visually indicating the location of the elevators and whether they are operational.
5. Status indicators and controls for air distribution systems.

6. The fire fighter's control panel required by Section 909.16 for smoke control systems installed in the building.
7. Controls for unlocking stairway doors simultaneously.
8. Sprinkler valve and water-flow detector display panels.
9. Emergency and standby power status indicators.
10. A telephone for fire department use with controlled access to the public telephone system.
11. Fire pump status indicators.
12. Schematic building plans indicating the typical floor plan and detailing the building core, means of egress, fire protection systems, fire-fighter air replenishment systems, fire-fighting equipment and fire department access, and the location of fire walls, fire barriers, fire partitions, smoke barriers and smoke partitions.
13. An approved Building Information Card that includes, but is not limited to, all the following information:
 - 13.1. General building information that includes property name, address, the number of floors in the building above and below grade, use and occupancy classification (for mixed uses, identify the different types of occupancies on each floor) and the estimated building population during the day, night and weekend;
 - 13.2. Building emergency contact information that includes: a list of the building's emergency contacts including but not limited to building manager, building engineer and their respective work phone number, cell phone number and e-mail address;
 - 13.3. Building construction information that includes: the type of building construction including but not limited to floors, walls, columns and roof assembly;
 - 13.4. Exit access stairway and exit stairway information that includes: number of exit access stairways and exit stairways in building; each exit access stairway and exit stairway designation and floors served; location where each exit access stairway and exit stairway discharges, interior exit stairways that are pressurized; exit stairways provided with emergency lighting; each exit stairway that allows reentry; exit stairways providing roof access; elevator information that includes: number of elevator banks, elevator bank designation, elevator car numbers and respective floors that they serve; location of elevator machine rooms, control rooms and control spaces; location of sky lobby; and location of freight elevator banks;
 - 13.5. Building services and system information that includes location of mechanical rooms, location of building management system, location and capacity of all fuel oil tanks, location of emergency generator and location of natural gas service;
 - 13.6. Fire protection system information that includes location of standpipes, location of fire pump room, location of fire department connections, floors protected by automatic sprinklers and location of different types of automatic sprinkler systems installed including but not limited to dry, wet and pre-action;
 - 13.7. Hazardous material information that includes location and quantity of hazardous material.
14. Worktable.
15. Generator supervision devices, manual start and transfer features.
16. Public address system, where specifically required by other sections of this code.

17. Elevator fire recall switch in accordance with ASME A17.1.

18. Elevator emergency or standby power selector switch(es), where emergency or standby power is provided.

SECTION 513 FIRE PROTECTION AND UTILITY EQUIPMENT IDENTIFICATION AND ACCESS

513.1 Identification. Fire protection equipment shall be identified in an approved manner. Rooms containing controls for air-conditioning systems, sprinkler risers and valves, or other fire detection, suppression or control elements shall be identified for the use of the fire department. Approved signs required to identify fire protection equipment and equipment location shall be constructed of durable materials, permanently installed and readily visible.

513.1.1 Utility identification. Where required by the fire marshal, gas shutoff valves, electric meters, service switches and other utility equipment shall be clearly and legibly marked to identify the unit or space that it serves. Identification shall be made in an approved manner, readily visible and shall be maintained.

513.2 Equipment access. Approved access shall be provided and maintained for all fire protection equipment to permit immediate safe operation and maintenance of such equipment. Storage, trash and other materials or objects shall not be placed or kept in such a manner that would prevent such equipment from being readily accessible.

SECTION 514 EMERGENCY RESPONDER RADIO COVERAGE

514.1 Emergency responder radio coverage in new buildings. New buildings shall have approved radio coverage for emergency responders within the building based upon the existing coverage levels of the public safety communication systems of the jurisdiction, measured at the exterior of the building. This section shall not require improvement of the existing public safety communication systems.

Exceptions:

1. VHF Hazard Channel Radio System coverage in buildings other than State, County, and Public-School buildings, unless specifically required by the fire marshal.
2. Where approved by the building official and the fire marshal, a wired communication system in accordance with Section 907.2.13.2 shall be permitted to be installed or maintained instead of an approved radio coverage system.
3. Where it is determined by the fire marshal that the radio coverage system is not needed.
4. In facilities where emergency responder radio coverage is required and such systems, components or equipment required could have a negative impact on the normal operations of that facility, the fire marshal shall have the authority to accept an automatically activated emergency responder radio coverage system.

514.2 Emergency responder radio coverage in existing buildings. Existing buildings shall be provided with approved radio coverage for emergency responders as required in Chapter 11.

514.3 Permit required. A construction permit for the installation of or modification to emergency responder radio coverage systems and related equipment is required as specified in Section 105.7.6. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

514.3.4 Rebroadcast. At time of application, the applicant must present the fire marshal with written approval from the Regional Wireless Coalition that rebroadcast of radio signals have been approved.

514.4 Technical requirements. Systems, components and equipment required to provide the emergency responder radio coverage system shall comply with Sections 514.4.1 through 514.4.2.5.

514.4.1 Radio signal strength. The building shall be considered to have acceptable emergency responder radio coverage when signal strength measurements in 95 percent of all areas on each floor of the building meet the signal strength requirements in Sections 514.4.1.1 and 514.4.1.3.

514.4.1.1 Minimum signal strength into the building. The minimum inbound signal strength shall be sufficient to provide usable voice communications throughout the coverage area as specified by the fire marshal. The inbound signal level shall be sufficient to provide not less than a Delivered Audio Quality (DAQ) of 3.0 or an equivalent SINR applicable to the technology for either analog or digital signals.

514.1.2 Minimum signal strength out of the building. The minimum outbound signal strength shall be sufficient to provide usable voice communications throughout the coverage area as specified by the fire marshal. The outbound signal level shall be sufficient to provide not less than a DAQ of 3.0 or an equivalent Signal-to-Interference-Plus-Noise Ratio (SINR) applicable to the technology for either analog or digital signals.

514.1.3 System performance. Signal strength shall be sufficient to meet the requirements of the applications being utilized by public safety for emergency operations through the coverage area as specified by the fire marshal in Section 514.4.2.2.

514.4.2 System design. The emergency responder radio coverage system shall be designed in accordance with Sections 514.4.2.1 through 514.4.2.8 and NFPA 1221.

514.4.2.1 Amplification systems and components. Buildings and structures that cannot support the required level of radio coverage shall be equipped with systems and components to enhance the public safety radio signals and achieve the required level of radio coverage specified in Sections 514.4.1 through 514.4.1.3. Public safety communications enhancement systems utilizing radio-frequency-emitting devices and cabling shall be approved by the fire marshal. Prior to installation, all RF-emitting devices shall have the certification of the radio licensing authority and be suitable for public safety use.

514.4.2.1 Boosters. Signal boosters must be approved by the Regional Wireless Coalition.

514.4.2.2 Technical criteria. The fire marshal shall maintain a document providing the specific technical information and requirements for the emergency responder radio coverage system. This document shall contain, but not be limited to, the various frequencies required, the location of radio sites, effective radiated power of radio sites, the maximum propagation delay in microseconds, the applications being used and other supporting technical information necessary for system design.

514.4.2.3 Standby power. Emergency responder radio coverage systems shall be provided with dedicated standby batteries or provided with 2-hour standby batteries and connected to the facility generator power system in accordance with Section 1203. The standby power shall be capable of operating the emergency responder coverage radio system at 100-percent system capacity for a duration of not less than 24 hours.

514.4.2.4 Signal booster requirements. If used, signal boosters shall meet the following requirements:

1. All signal booster components shall be contained in a National Electrical Manufacturer's Association (NEMA) 4-type waterproof cabinet.
2. Battery systems used for the emergency power source shall be contained in a NEMA 3R or higher-rated cabinet.
3. Equipment shall have FCC or other radio licensing authority certification and be suitable for public safety use prior to installation.
4. Where a donor antenna exists, isolation shall be maintained between the donor antenna and all inside antennas to not less than 20dB greater than the system gain under all operating conditions.

5. Bi-Directional Amplifiers used in emergency responder radio coverage systems shall have oscillation prevention circuitry.

6. The installation of amplification systems or systems that operate on or provide the means to cause interference on any emergency responder radio coverage networks shall be coordinated and approved by the fire marshal.

514.4.2.5 System monitoring. The emergency responder radio enhancement system shall be monitored by a listed fire alarm control unit, or where approved by the fire marshal, shall sound an audible signal at a constantly attended on-site location. Automatic supervisory signals shall include the following;

1. Loss of normal AC power supply,
2. System battery charger(s) failure,
3. Malfunction of the donor antenna(s),
4. Failure of active RF-emitting devices,
5. Low-battery capacity at 70-percent reduction of operating capacity,
6. Failure of critical system components,
7. The communications link between the fire alarm system and the emergency responder radio enhancement system.

514.4.2.6 Additional frequencies and change of frequencies. The emergency responder radio coverage system shall be capable of modification or expansion in the event frequency changes are required by the FCC or additional frequencies are made available by the FCC or other radio licensing authority.

514.4.2.7 Design documents. The fire marshal shall have the authority to require “as-built” design documents and specifications for emergency responder communications coverage systems. The documents shall be in a format acceptable to the fire marshal.

514.4.2.8 Radio communication antenna density. System shall be engineered to minimum the near-far effect. Radio enhancement system designs shall include sufficient antenna density to address reduces gain conditions.

Exceptions:

1. Class A narrow band signal booster devices with independent AGC/ALC circuits per channel.
2. Systems where all portable devices within the same band use active power control features.

514.5 Installation requirements. The installation of the public safety radio coverage system shall be in accordance with NFPA 1221 and Sections 514.5.1 through 514.5.4.

514.5.1 Approval prior to installation. Amplification systems capable of operating on frequencies licensed to any public safety agency by the FCC shall not be installed without prior coordination and approval of the fire marshal.

514.5.2 Minimum qualifications of personnel. The minimum qualifications of the system designer and lead installation personnel shall include both of the following:

1. A valid FCC-issued general radio operators license.

2. Certification of in-building system training issued by a nationally recognized organization, school or a certificate issued by the manufacturer of the equipment being installed.

These qualifications shall not be required where demonstration of adequate skills and experience satisfactory to the fire marshal is provided.

514.5.3 Acceptance test procedure. Where an emergency responder radio coverage system is required, and upon completion of installation, the building owner shall have the radio system tested to verify that two-way coverage on each floor of the building is not less than 95 percent. The test procedure shall be conducted as follows:

1. Each floor of the building shall be divided into a grid of 20 approximately equal test areas.
2. The test shall be conducted using a calibrated portable radio of the latest brand and model used by the agency talking through the agency's radio communications system or equipment approved by the fire marshal.
3. Failure of more than one test areas shall result in failure of the test.
4. In the event that two of the test areas fail the test, in order to be more statistically accurate, the floor shall be permitted to be divided into 40 equal test areas. Failure of not more than four nonadjacent test areas shall not result in failure of the test. If the system fails the 40-area test, the system shall be altered to meet the 95-percent coverage requirement.
5. A test location approximately in the center of each test area shall be selected for the test, with the radio enabled to verify two-way communications to and from the outside of the building through the public agency's radio communications system. Once the test location has been selected, that location shall represent the entire test area. Failure in the selected test location shall be considered failure of that test area. Additional test locations shall not be permitted.
6. The gain values of all amplifiers shall be measured, and the test measurement results shall be kept on file with the building owner so that the measurements can be verified during annual tests. If the measurement results become lost, the building owner shall be required to rerun the acceptance test to reestablish the gain values.
7. As part of the installation a spectrum analyzer or other suitable test equipment shall be utilized to ensure spurious oscillations are not being generated by the subject signal booster. This test shall be conducted at the time of installation and subsequent annual inspections.
8. Systems incorporating Class B signal-booster devices or Class B broadband fiber remote devices shall be tested using two portable radios simultaneously conducting subjective voice quality checks. One portable radio shall be positioned not greater than 10 feet from the indoor antenna. The second portable radio shall be positioned at a distance that represents the farthest distance from any indoor antenna. With both portable radios simultaneously keyed up on different frequencies within the same band, subjective audio testing shall be conducted and comply with DAQ levels as specified in Sections 514.4.1.1 and 514.4.1.2.

514.5.4 FCC compliance. The emergency responder radio coverage system installation and components shall also comply with all applicable federal regulations including, but not limited to, FCC 47 CFR Part 90.219.

514.6 Maintenance. The emergency responder radio coverage system shall always be maintained operational in accordance with Sections 514.6.1 through 514.6.4.

514.6.1 Testing and proof of compliance. The emergency responder radio coverage system shall be inspected and tested annually or where structural changes occur including additions or remodels that could materially change the original field performance tests. Testing shall consist of the following:

1. In-building coverage test as described in Section 514.5.3.

2. Signal boosters shall be tested to verify that the gain is the same as it was upon initial installation and acceptance.
3. Backup batteries and power supplies shall be tested under load of a period of 1 hour to verify that they will properly operate during an actual power outage. If within the 1-hour test period, the battery exhibits symptoms of failure, the test shall be extended for additional 1-hour periods until the integrity of the battery can be determined.
4. Other active components shall be checked to verify operation within the manufacturer's specifications.
5. At the conclusion of the testing, a report, which shall verify compliance with Section 514.5.3, shall be submitted to the fire marshal.

514.6.2 Additional frequencies. The building owner shall modify or expand the emergency responder radio coverage system at his or her expense in the event frequency changes are required by the FCC or additional frequencies are made available by the FCC. Prior approval of a public safety radio coverage system on previous frequencies does not exempt this section.

514.6.3 Nonpublic safety system. Where other nonpublic safety communication systems installed in buildings reduce the performance or cause interference with the emergency responder communication coverage system, the nonpublic safety system shall be corrected or removed.

514.6.4 Field testing. Agency personnel shall have the right to enter onto the property at any reasonable time to conduct field testing to verify the required level of radio coverage.

SECTION 515 CONTROLLED ACCESS/SECURITY GATES OR BARRIERS

515.1 General. The installation of controlled access/security gates or barriers across a fire apparatus access road shall be approved by the fire marshal and meet the requirements of Section 515.

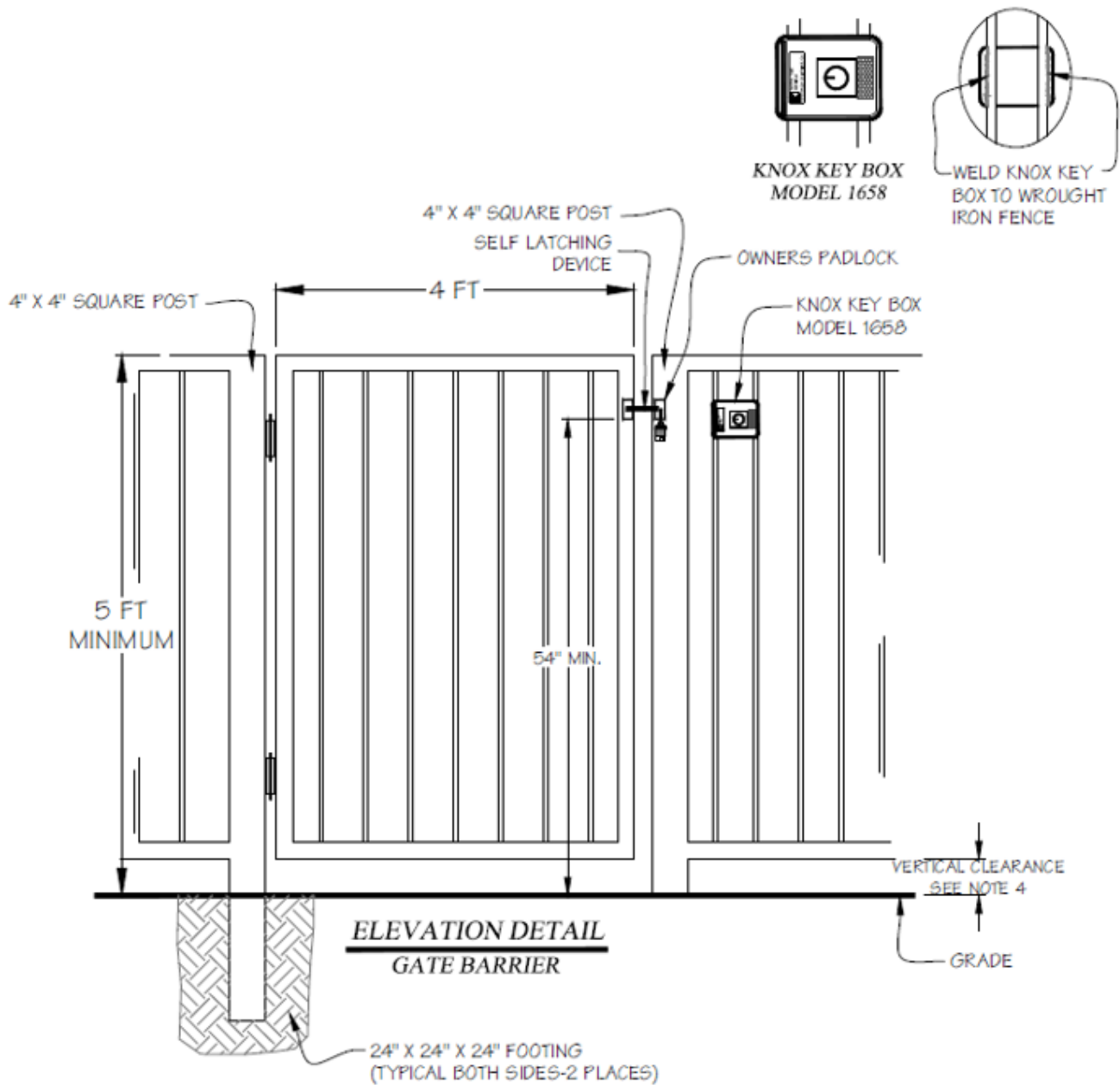
515.1.1 Permits. Permits shall be required to install or modify controlled access gates.

515.1.2 Gate installation companies. When gates are installed at any location that obstructs a fire apparatus access road, the installing company shall be licensed by the Arizona Registrar of Contractors as L-5 or C-5.

515.1.3 Egress. Fire apparatus access/security gates or barriers shall be designed and installed such that they do not obstruct the egress or departure of emergency vehicles.

511.1.3.1 Pedestrian gates. Pedestrian gates installed as part of the means of egress shall comply with this section, the Avondale Building Code, and Chapter 10 of this code.

**Figure 515.1.3.1
Pedestrian Gate Detail**



515.1.4 Maintenance. All fire apparatus access gates shall always be maintained operable and shall be inspected at least annually. Copies of the annual inspection report shall be maintained and be accessible for fire department review.

515.1.5 Inoperable gates. Controlled access gates that are inoperable and impede the entrance of fire apparatus shall be chained open or removed at the owner's expense.

515.1.6 Illegal gates. Controlled access gates that obstruct fire apparatus access roads and have been installed without a permit shall be chained open or removed at the owner's or installing contractor's expense until a permit and final approval has been obtained from the fire department.

515.1.7 F.D. Access Sign. A "F.D. Access" sign shall be installed on of all gates or barriers that cross a

required fire apparatus road or walkway. The sign will be installed so that it faces the direction of the fire apparatus access road. The sign face shall be 8-inch by 4-inch, fabricated from .080 aluminum sheet with ½-inch radius corners and a white 3M Scotchlite reflective background, inverse-cut letters to allow white reflective background to show through, and a red face.



515.1.8 Main entrance identification sign. The sign face shall be a minimum 36-inch by 24-inch, fabricated from .080 aluminum sheet with ½-inch radius corners, a white 3M Scotchlite reflective background, inverse-cut letters to allow white reflective background to show through, and a red face. The sign shall include the “Apartment Name” (top position), “APARTMENT ACCESS” (middle position), and an arrow indicating the location of the main access entrance (bottom position).

515.1.9 Approved key switch. Approved key switches shall be manufactured by the Knox Company and equipped with the City of Avondale keyway.

515.2 Fire apparatus access gates.

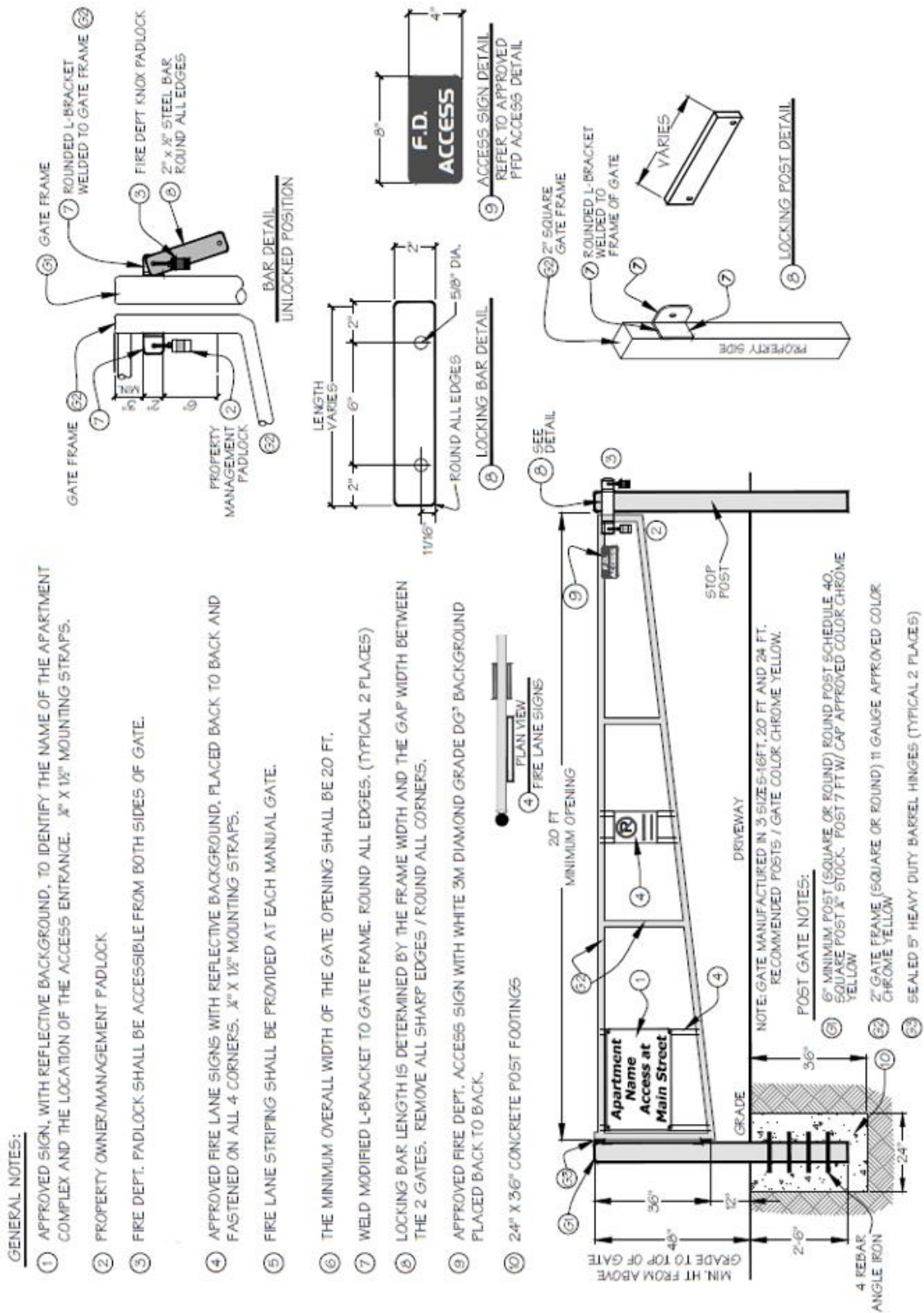
515.2.1 General. Fire apparatus access gates shall be configured in accordance with Figures 515.2.1(a) through 515.2.1(e), or as approved by the fire marshal.

515.2.2 Automatic operation. Fire apparatus access gates shall have automatic operation where no turnaround is provided for fire apparatus.

515.2.3 Main entrance identification. Access openings shall have a main entrance identification sign according to Section 515.1.8 attached on the street side of the fire apparatus access gate.

515.2.4 Marking and signage. Manual and automatic access openings are required to be marked in accordance with Section 515.3.5.

Figure 515.2.1(a)
Single Manual Swing Gate



GENERAL NOTES:

- ① APPROVED SIGN, WITH REFLECTIVE BACKGROUND, TO IDENTIFY THE NAME OF THE APARTMENT COMPLEX AND THE LOCATION OF THE ACCESS ENTRANCE. $\frac{1}{8}$ " X $1\frac{1}{2}$ " MOUNTING STRAPS.
- ② PROPERTY OWNER/MANAGEMENT PADLOCK
- ③ FIRE DEPT. PADLOCK SHALL BE ACCESSIBLE FROM BOTH SIDES OF GATE.
- ④ APPROVED FIRE LANE SIGNS WITH REFLECTIVE BACKGROUND, PLACED BACK TO BACK AND FASTENED ON ALL 4 CORNERS. $\frac{1}{8}$ " X $1\frac{1}{2}$ " MOUNTING STRAPS.
- ⑤ FIRE LANE STRIPING SHALL BE PROVIDED AT EACH MANUAL GATE.
- ⑥ THE MINIMUM OVERALL WIDTH OF THE GATE OPENING SHALL BE 20 FT.
- ⑦ WELD MODIFIED L-BRACKET TO GATE FRAME. ROUND ALL EDGES. (TYPICAL 2 PLACES)
- ⑧ LOCKING BAR LENGTH IS DETERMINED BY THE FRAME WIDTH AND THE GAP WIDTH BETWEEN THE 2 GATES. REMOVE ALL SHARP EDGES / ROUND ALL CORNERS.
- ⑨ APPROVED FIRE DEPT. ACCESS SIGN WITH WHITE 3M DIAMOND GRADE DG-3 BACKGROUND PLACED BACK TO BACK.

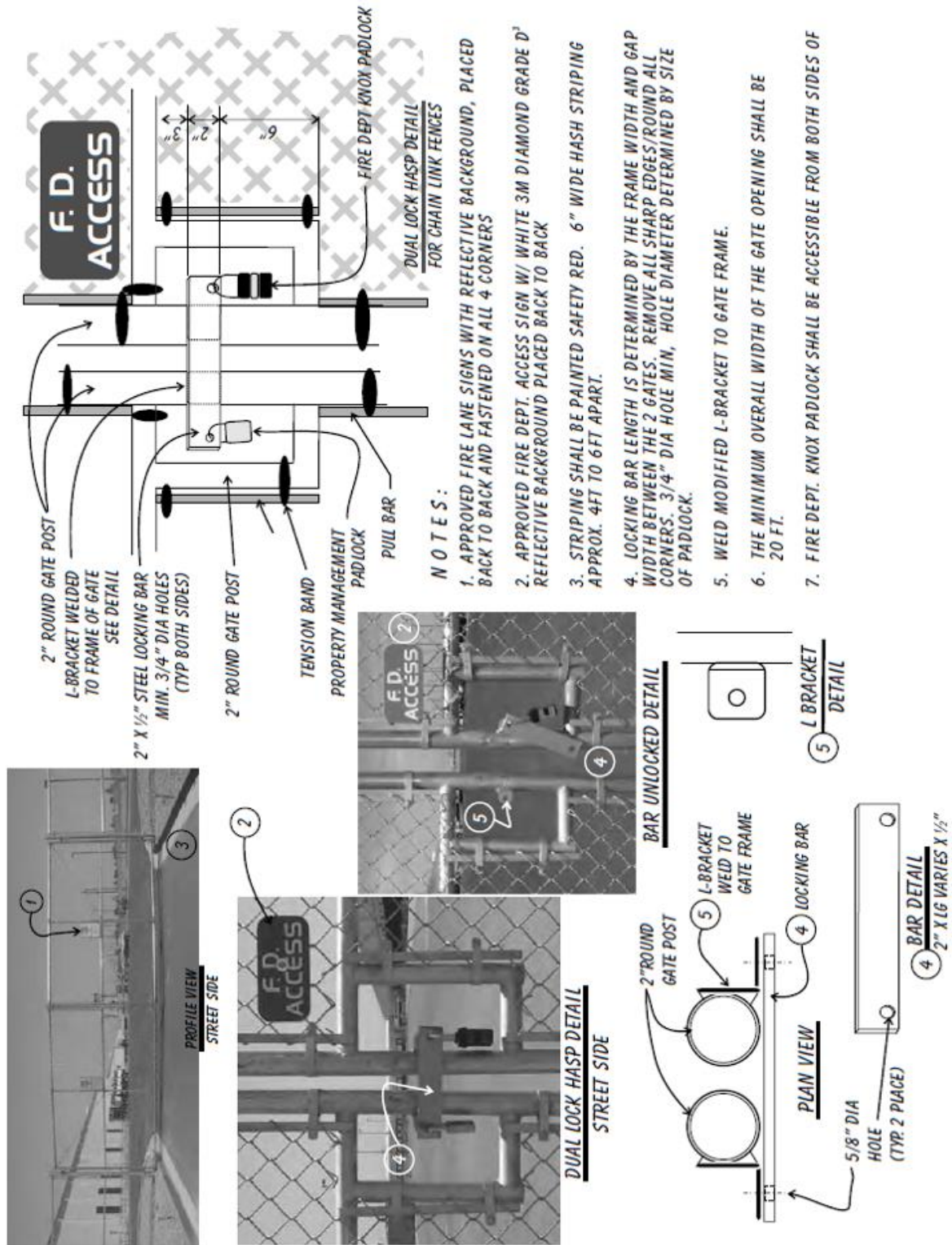
The technical drawing illustrates a fire lane gate system. It includes a plan view (top left) showing a rectangular gate opening with dimensions: length varies, width is 6' with 2' end sections, and a locking bar detail at one end. A side elevation (middle left) shows the gate frame, rounded L-bracket welded to the gate frame, fire dept knock padlock, 2" x 3" steel bar round all edges, and a property management padlock. A detail view (bottom left) shows the bar detail in unlocked position. A plan view (top right) shows the gate opening with a minimum opening of 20 ft, a 10" gap between gates, and a locking bar detail. A side elevation (middle right) shows the gate frame, rounded L-bracket welded to gate frame, 2" square gate frame, 5/8" hole locking bar, and a locking bar detail. A detail view (bottom right) shows the access sign detail, referring to approved PFD access detail. Notes specify gate manufacturing standards, recommended post/gate color, and mounting strap details.

NOTES: GATE MANUFACTURED IN 3 SIZES: 16 FT., 20 FT. AND 24 FT.
RECOMMENDED POST/GATE COLOR: CHROME YELLOW
SEE FIRE LANE STRIPING DETAILS.

POST GATE NOTES:

- ⑥ 3" X 3" X .120 POST 7 FT W/ CAP APPROVED COLOR CHROME YELLOW
- ⑦ 2" X 2" X .120 RAILS APPROVED COLOR CHROME YELLOW
- ⑧ 5" HEAVY DUTY BARREL HINGES (TYPICAL 4 PLACES)

Figure 515.2.1(c)
Manual Chain Link Gate



MANUAL SWING GATE



APPROVED AUTOMATIC VEHICLE ACCESS GATE PREEMPTION DETECTORS WITH KNOX KEY SWITCHES

NOTES:

- ① EACH AUTOMATIC GATE SHALL HAVE TOMAR MODEL 2795-2 DUAL HEAD UNIT.
- ② DETECTORS SHALL BE MOUNTED 8 TO 10 FEET FROM GRADE ON A 4" X 4" METAL POST.
- ③ DETECTORS SHALL BE ON SEPARATE POST, NOT ON GUIDE POST.
- ④ DETECTORS SHALL POINT TOWARD THE APPROACH PATH AND EXIT PATH OF THE EMERGENCY VEHICLES. DETECTORS MUST ACTIVATE WITHIN 150 FEET FROM GATE.
- ⑤ THE POWER MODULE SHALL BE MOUNTED IN AN ELECTRICAL JUNCTION BOX, UNDER THE DETECTORS ON THE SAME 4" X 4" METAL POST.
- ⑥ THE 4" X 4" SQUARE POST WITH DETECTOR AND POWER MODULE SHALL BE INSTALLED ON THE PROPERTY SIDE OF THE GATE.
- ⑦ APPROVED EMERGENCY KEY SWITCH SHALL BE INSTALLED ON THE ENTRANCE AND EXIT SIDE OF EACH ACCESS GATE. ENTRANCE SWITCH SHALL BE LOCATED ABOVE THE RESIDENCE KEY PAD 5% FT FROM GRADE. EXIT SWITCH SHALL BE RECESSED INTO THE 4" X 4" POST WITH THE DUAL DETECTORS AND POWER MODULE UNIT.

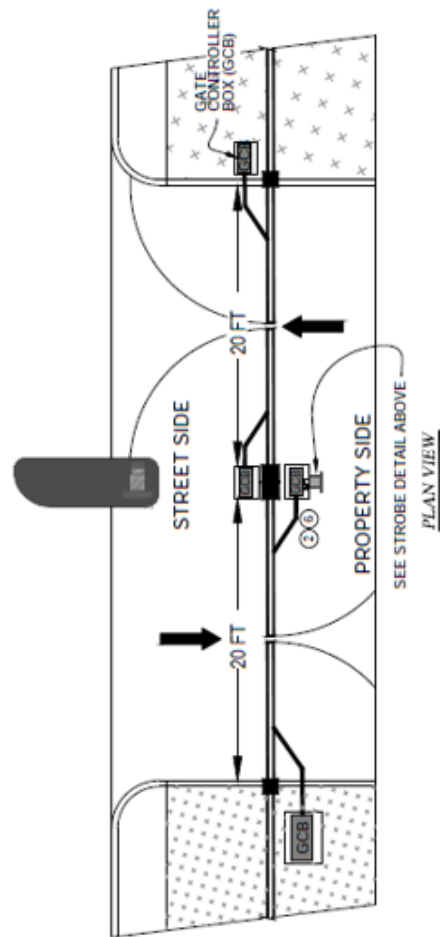
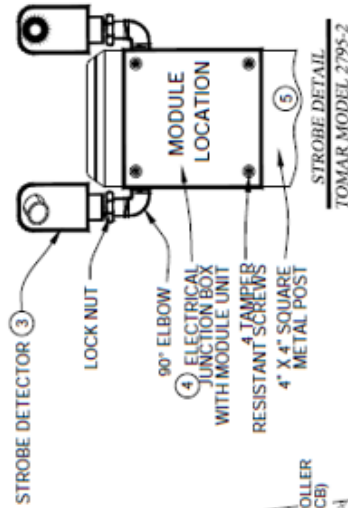
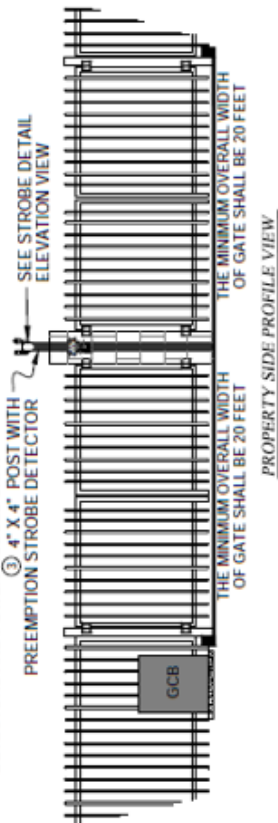
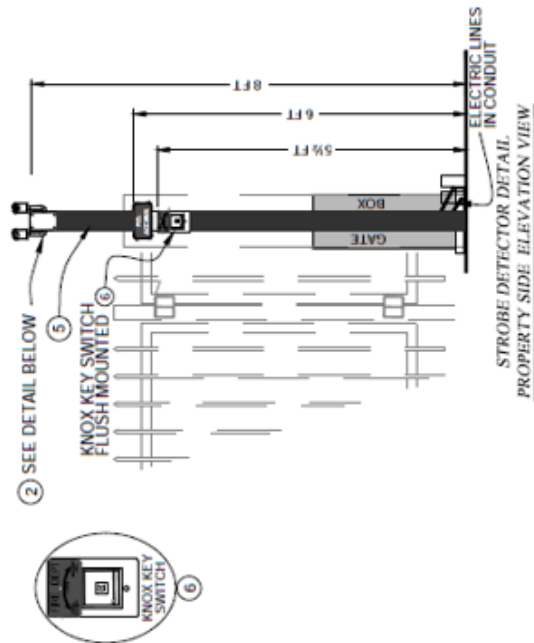


Figure 515.2.1(e)
Automatic Gate

515.3 Controlled access gate specifications. When controlled access gates are installed across a fire apparatus access road the specifications in Section 515.2 shall apply.

515.3.1 Opening width. When the gate is fully opened, a minimum 20-foot (6096 mm) clear width shall be provided for both the entrance and exit gates. Gates installed and approved prior July 1, 2020, shall be maintained in accordance with the original approval. The fire marshal shall require additional width opening when a 45-foot (13 716 mm) fire apparatus turning radius cannot be met.

Exception: Access roads serving three or fewer Group R-3 occupancies within 350 feet (106 680 mm) from the street to each residence's main entrance, as the fire fighters travel shall be exempt from the requirement of 20 feet (6096 mm).

515.3.2 Electric and solar voltaic power system operated gates. Electric and solar operated gates shall be installed in accordance with this section.

515.3.2.1 Standby power systems. Electric and solar operated gates shall be provided with a standby power system. Standby power is permitted to be, but not limited to, battery back-up or connection to an emergency generator. The activation of the system shall open gates and maintain them in the open position until primary power is restored to the system. Standby power systems are required to comply with the National Electrical Code Article 701.

Exception: Controlled access gates installed at occupancies other than multifamily residential properties may remain closed until the emergency gate switch is activated and shall then remain open while the standby power system is operating the gate.

515.3.3 Opening time. Electric and solar operated controlled access gates shall open at a minimum rate of 1 foot per second (0.305 m/s).

515.3.4 Key switch. Each electric and solar operated controlled access gate shall be equipped with an approved key switch on both sides of the gate. When separate entry and exit gates are provided, the emergency key switch shall open the entrance and exit gates.

515.3.5 Key switch identification. An approved F.D. ACCESS sign in accordance with Section 515.1.7 shall be installed within 12 inches (305 mm) of the emergency key switch. The key switch shall be illuminated to be visible from fire apparatus.

515.3.6 Height. The key switch shall be mounted between 51/2 and 6 feet (1676 to 1829 mm) above grade.

515.3.6.1 Solar photovoltaic cell location. The solar cell shall be located a minimum of 7 feet (2133 mm) above grade. The photovoltaic cell shall be located on the 4 by 4-inch preemption post.

515.3.7 Obstruction and impairment. Posts, fences, vehicles, growth, trash, storage and other materials shall not be kept near key switches in a manner that would prevent the key switches from being visible.

515.3.8 Bypass of systems. When activated, the emergency key switch shall bypass all occupant and loop switch systems.

515.4 Preemption devices. Preemption devices are required on all new automatic fire access gates. Existing gates installed without permits or proof of installation date shall be retrofitted with preemption devices. Voluntary installations of preemption devices shall comply with the requirements of this Section.

Exception: Access road serving three or fewer Group R-3 occupancies.

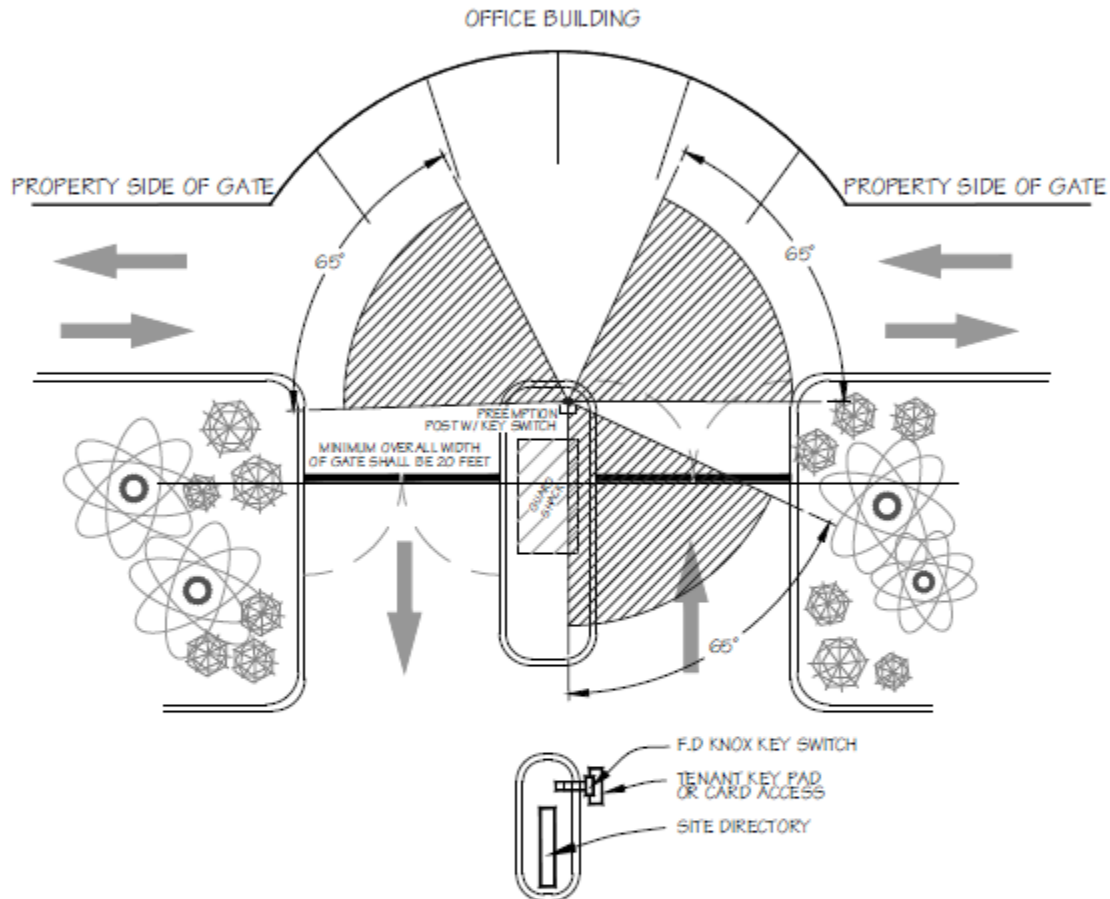
515.4.1 Locations. The devices shall be installed such that the gate will open for both ingress and egress of emergency vehicles.

515.4.2 Minimum installation standards. The installation of preemption devices shall comply with the following:

1. Detectors shall be mounted 8 to 10 feet (2439 to 3048 mm) above grade.
2. Detectors shall be located a minimum of 18 inches (457 mm) behind the gate on the property side.
3. Detectors shall be mounted on a separate 4 by 4-inch (102 to 102 mm) metal post and not on the guidepost. The metal post shall be cemented a minimum of 18 inches (457 mm) below grade.
4. Detectors shall activate at a minimum of 150 feet (45 720 mm) from the gate.
5. Detectors shall point toward both the approach and the exit path of the emergency vehicle. Refer to Figures 515.4.2(a) and 515.4.2(b).
6. The sight path of the detector shall be free of visual obstructions such as signs, covered parking, canopies and vegetation.
7. Individual detectors shall be mounted together with the power module in the dual detector-mounting box. Detectors shall be approved by the fire department.

Figure 515.4.2(a)
Automatic Gate Entrance with 3
Preemption Devices

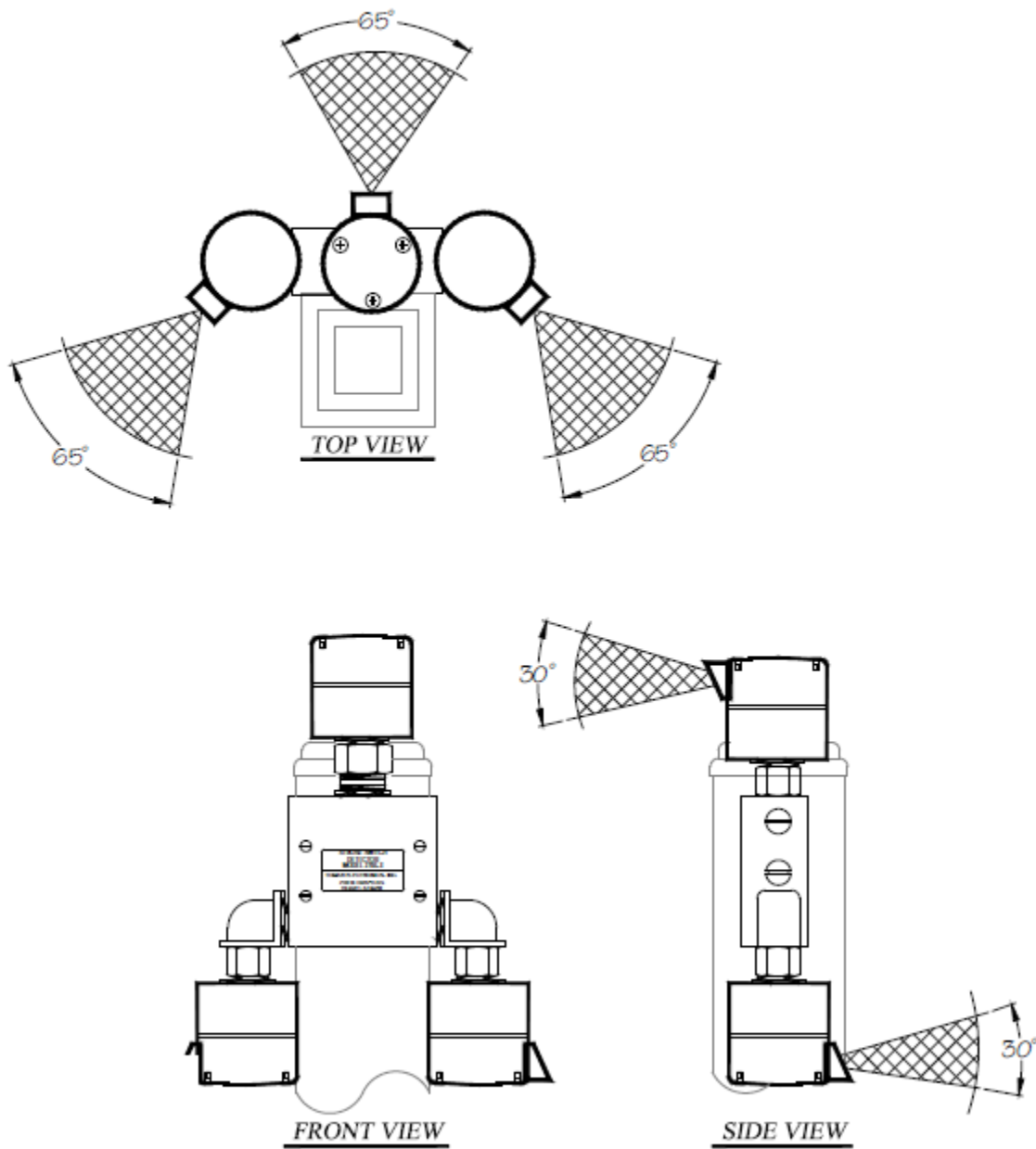
TOMAR MODEL 2795-3



NOTES:

1. DETECTORS SHALL BE MOUNTED 8 TO 10 FEET FROM GRADE ON A 4" X 4" METAL POST. NO MIRRORS SHALL SUBSTITUTE THE REQUIREMENTS OF TWO DETECTORS PER GATE.
2. DETECTORS SHALL POINT TOWARD THE APPROACH PATH AND EXIT PATH OF THE EMERGENCY VEHICLES. DETECTORS MUST ACTIVATE 150 FEET FROM GATE.
3. POWER MODULE SHALL BE MOUNTED IN AN ELECTRICAL JUNCTION BOX, UNDER THE DETECTORS ON THE SAME 4" X 4" METAL POST.
4. THE 4" X 4" SQUARE POST WITH DETECTOR AND POWER MODULE SHALL BE INSTALLED ON THE PROPERTY SIDE OF THE GATE. (NOT ON GUIDE POST)
5. APPROVED EMERGENCY KEY SWITCH SHALL BE INSTALLED ON THE ENTRANCE AND EXIT SIDE OF EACH ACCESS GATE. ENTRANCE SWITCH SHALL BE LOCATED ABOVE THE RESIDENCE KEY PAD 5 1/2 FT FROM GRADE. EXIT SWITCH SHALL BE LOCATED ON THE 4" X 4" POST WITH THE DUAL DETECTORS AND POWER MODULE UNIT.

Figure 515.4.2(b)
3 Tomar Preemption Devices



NOTE:

3 HEADS ARE REQUIRED WITH 90° TURNING LAYOUTS

515.5 Manual controlled access gates. Manual controlled access gates that cross a fire apparatus access roads or other roads that, when determined by the fire marshal, provide access to areas where immediate access is necessary for lifesaving or fire-fighting purposes shall comply with Section 515.3.

515.5.1 Locking mechanism. All manual controlled access gates that cross a fire apparatus access road shall use an approved dual padlock mechanism in accordance with Figures 515.2.1(a) through 515.2.1(d).

515.5.2 Signs. Approved signs shall be provided on the manual gates. The signs shall have a reflective background and shall be bolted back-to-back onto each side of the gate in accordance with Figures 515.2.1(a) through 515.2.1(d).

515.5.3 Marking. Minimum 6-inch (152 mm) wide red, crosshatched striping shall be painted on the ground surface on both sides of the manual access gate, including recessed areas as determined by the fire department. A minimum of two applications of paint is required.

Section 807.5.2 is deleted in its entirety and replaced with the following:

807.5.2 Group E. Group E occupancies shall comply with Sections 807.5.2.1 through 807.5.2.2.

Section 807.5.2.3 is deleted in its entirety.

Section 901.4.6 through 901.4.6.4 is deleted in its entirety and replaced with the following:

901.4.6 Pump and riser room size. Where provided, fire pump rooms and automatic sprinkler system riser rooms shall be dedicated for the purpose, designed with 36 inches of clear space around all equipment necessary for the installation, as defined by the manufacturer, with enough working space around the stationary equipment. Clearances around equipment to elements of permanent construction, including other installed equipment and appliances, shall be enough to allow inspection, service, repair or replacement without removing such elements of permanent construction or disabling the function of a required fire-resistance-rated assembly. Fire pump and automatic sprinkler system riser rooms shall be provided with a door(s) and an unobstructed passageway large enough to allow removal of the largest piece of equipment.

901.4.6.1 Access. Rooms for automatic sprinkler system risers, fire pumps and controllers shall be provided with a door leading directly outside. An approved Knox key box is required adjacent to the door's strike leg or an approved location.

901.4.6.1.1 Walking surface. A sidewalk or other approved hard all-weather surface leading from the fire apparatus access road to the exterior door of the automatic sprinkler system riser rooms and fire pump rooms is required.

901.4.6.2 Marking on access doors. Access doors for automatic sprinkler system riser rooms and fire pump rooms shall be labeled with an approved sign. Where a fire alarm control panel is located inside the riser room, the sign shall state, "Fire Control Room", in all other cases it shall read, "Sprinkler Riser" or "Fire Pump".

901.4.6.2 Signs. The sign face shall be 12-inch by 12-inch, fabricated from .080 aluminum sheet with ½-inch radius corners, white 3M Scotchlite reflective background, 1.5-inch inverse cut letters to allow white reflective background to show through, and a red face.

901.4.6.3 Environment. Automatic sprinkler system riser rooms and fire pump rooms shall be maintained at a temperature of not less than 40 degrees Fahrenheit. Heating units shall be permanently installed. When a fire alarm panel is co-located within an automatic sprinkler riser room, the room must be provided with the necessary air-conditioning equipment to maintain an ambient temperature consistent with the fire alarm panel's listing.

901.4.6.4 Lighting. Permanently installed artificial illumination and emergency lighting shall be provided in the automatic sprinkler system riser rooms and fire pump rooms. Emergency lighting shall

be provided in the automatic sprinkler system riser rooms and fire pump rooms in accordance with Sections 1008.3.4 and 1008.3.5.

901.4.6.5 Storage prohibited. Storage within automatic sprinkler system riser rooms and fire pump rooms is prohibited. An approved “Storage Prohibited” sign is required to be mounted on a wall of the room.

Section 901.6.3 is deleted in its entirety and replaced with the following:

901.6.3 Records. Records of all system inspections, tests and maintenance required by the referenced standards shall be maintained on the premises for a minimum of three years and the servicing contractor shall submit inspection, testing, and maintenance reports online to the approved 3rd party reporting service within 30 days of the date of service. Failure to submit reports within the 30-day period will result in penalties identified in Section 110.

The fire department will maintain a webpage on the City of Avondale’s Official Website identifying the name of the 3rd party reporting service, the reporting service’s contact information, and the types of fire protection systems that must be reported.

Section 901.7 is deleted in its entirety and replaced with the following:

901.7 Systems out of service. Where a required fire protection system is out of service, the fire department and the fire marshal shall be notified immediately and, where required by the fire marshal, the building shall be either evacuated or and approved fire watch shall be provided for all occupants left unprotected by the shutdown until the fire protection system has been returned to service.

Where utilized, fire watches shall be provided with not less than one approved means for notification of the fire department and their only duty shall be to perform constant patrols of the protected premises and keep watch for fires. An employee who works at the building in which a fire watch is required may serve as the fire watch. The fire watch shall be provided with printed instructions in compliance with A.R.S. § 9-808, as amended.

901.7.1 Impairment coordinator. The building owner shall assign an impairment coordinator to comply with the requirements of this section. In the absence of a specific designee, the owner shall be considered to be the impairment coordinator.

901.7.2 Tag required. A tag shall be used to indicate that a system, or portion thereof, has been removed from service.

901.7.3 Placement of tag. The tag shall be posted at each fire department connection, system control valve, fire alarm control unit, fire alarm annunciator and fire command center, indicating which system, or part thereof, has been removed from service. The fire marshal shall specify where the tag is to be placed.

901.7.4 Preplanned impairment programs. Preplanned impairments shall be authorized by the impairment coordinator. Before authorization is given, a designated individual shall be responsible for verifying that all of the following procedures have been implemented:

1. The extent and expected duration of the impairment have been determined.
2. The areas or buildings involved have been inspected and the increased risks determined.
3. Recommendations have been submitted to management or the building owner/manager.
4. The fire department has been notified.
5. The insurance carrier, the alarm company, the building owner/manager and other authorities having jurisdiction have been notified,
6. The supervisors in the areas to be affected have been notified,
7. A tag impairment system has been implemented, and
8. Necessary tools and materials have been assembled on the impairment site.

901.7.5 Emergency impairments. Where unplanned impairments occur, appropriate emergency action shall be

taken to minimize potential injury and damage. The impairment coordinator shall implement the steps outlined in Section 901.7.4.

901.7.6 Restoring systems to service. Where impaired equipment is restored to normal working order, the impairment coordinator shall verify that all of the following procedures have been implemented:

1. Necessary inspections and tests have been conducted to verify that affected systems are operational.
2. Supervisors have been advised that protection is restored.
3. The fire department has been advised that protection is restored.
4. The building owner/manager, insurance carrier, alarm company and other involved parties have been advised that protection is restored.
5. The impairment tag(s) has/have been removed.

Sections 903.2 through 903.2.12 are deleted in its entirety and replaced with the following:

903.2 Where required. Approved NFPA Standard 13 automatic sprinkler systems in new buildings and structures shall be provided in the locations described in Sections 903.2.1 through 903.2.14.

Exceptions:

1. Detached gazebos, temporary tents and ramadas for residential and public use,
2. Independent building of any construction or occupancy other than Group E or H of 1,000 square feet or less,
3. Detached non-combustible carports or parking canopies regardless of size, or detached noncombustible canopies used exclusively for automotive motor fuel dispensing station not exceeding 5,000 sq. ft,
4. Factory built buildings utilized as temporary office buildings like real estate leasing offices and construction offices,
5. Spaces or areas in telecommunications buildings used exclusively for telecommunications equipment, associated electrical power distribution equipment, batteries and standby engines, provided those spaces or areas are equipped throughout with an automatic smoke detection system in accordance with Section 907.2 and are separated from the remainder of the building by not less than 1-hour fire barriers constructed in accordance with Section 707 of the International Building Code or not less than 2-hour horizontal assemblies constructed in accordance with Section 711 of the International Building Code, or both.
6. Special use non-combustible structures as approved by the Fire Marshal.

903.2.1 Group A. A NFPA Standard 13 automatic sprinkler system shall be provided throughout all buildings containing a Group A occupancy.

903.2.2 Group B. A NFPA Standard 13 automatic sprinkler system shall be provided throughout all buildings containing a Group B occupancy.

903.2.3 Group E. A NFPA Standard 13 automatic sprinkler system shall be provided for Group E occupancies as follows:

1. Throughout all Group E fire areas greater than 12,000 square feet (1115 m²) in area.
2. Throughout every portion of educational buildings below the lowest level of exit discharge serving that portion of the building.

Exception: An automatic sprinkler system is not required in any area below the lowest level of exit discharge serving that area where every classroom throughout the building has at least one exterior exit door at ground level.

903.2.4 Group F. A NFPA Standard 13 automatic sprinkler system shall be provided throughout all buildings containing a Group F occupancy.

903.2.5 Group H. Automatic sprinkler systems shall be provided in high-hazard occupancies as required in Sections 903.2.5.1 through 903.2.5.2.

903.2.5.1 General. A NFPA Standard 13 automatic sprinkler system shall be installed in Group H occupancies.

903.2.5.2 Group H-5 occupancies. A NFPA Standard 13 automatic sprinkler system shall be installed throughout buildings containing Group H-5 occupancies. The design of the sprinkler system shall not be less than that required under the International Building Code for the occupancy hazard classifications in accordance with Table 903.2.5.2.

Where the design area of the sprinkler system consists of a corridor protected by one row of sprinklers, the maximum number of sprinklers required to be calculated is 13.

**TABLE 903.2.5.2
GROUP H-5 SPRINKLER DESIGN CRITERIA**

LOCATION	OCCUPANCY HAZARD CLASSIFICATION
Fabrication areas	Ordinary Hazard Group 2
Service corridors	Ordinary Hazard Group 2
Storage rooms without dispensing	Ordinary Hazard Group 2
Storage rooms with dispensing	Extra Hazard Group 2
Corridors	Ordinary Hazard Group 2

903.2.6 Group I. A NFPA Standard 13 automatic sprinkler system shall be provided throughout all buildings containing a Group I occupancy.

903.2.7 Group M. A NFPA Standard 13 automatic sprinkler system shall be provided throughout all buildings containing a Group M occupancy.

903.2.8 High-piled storage. An automatic sprinkler system shall be provided as required in Chapter 32 in all buildings of Group M where storage of merchandise is in high-piled or rack storage arrays.

903.2.8 Group R. A NFPA Standard 13 automatic sprinkler system shall be provided throughout buildings with a Group R fire area.

903.2.8.1 Group R-3. An automatic sprinkler system installed in accordance with NFPA Standard 13-D shall be permitted in Group R-3 occupancies.

903.2.8.2 Group R-4, Condition 1. An automatic sprinkler system installed in accordance with NFPA Standard 13-R shall be permitted in Group R-4, Condition 1 occupancies.

903.2.8.3 Group R-4, Condition 2. An automatic sprinkler system installed in accordance with NFPA Standard 13-R shall be permitted in Group R-4, Condition 2 occupancies.

903.2.8.4 Care Facilities. An automatic sprinkler system installed in accordance with NFPA Standard 13-D shall be permitted in care facilities with 5 or fewer individuals in a single-family dwelling.

903.2.8.5 Developmental Disability Residential Facilities. The requirement to install an automatic fire sprinkler system shall comply with A.R.S. § 36-582, as amended.

903.2.13 Structures exceeding 5,000 square feet. Structures with a Group R-3 or R-4 fire area, which exceed 5,000 square feet in area, under roof, shall be provided with an automatic fire sprinkler system

meeting the requirements of NFPA 13.

903.2.9 Group S. A NFPA Standard 13 automatic sprinkler system shall be provided throughout all buildings containing a Group S occupancy.

903.2.10 Group U. A NFPA Standard 13 automatic sprinkler system shall be provided throughout buildings exceeding 5,000 square feet, under roof, and contain a Group U occupancy.

903.2.11 Non-residential shade canopies. A NFPA Standard 13 automatic sprinkler system shall be provided under non-residential shade canopies.

Exceptions:

1. Where a slatted, lattice or louvered canopy roof system is more than 50 percent open to the sky,
2. Where shade membrane fabric is used to cover garden, greenhouse, landscaping or plant nursery products or materials, not exceeding 5,000 square feet (372 m²),
3. Shade canopies that are made of noncombustible material with a flame spread index no greater than 25 when tested in accordance with ASME E84, not exceeding 1,000 square feet (93.2 m²),
4. Patio covers that do not exceed 400 square feet (37.2 m²) in area

903.2.12 Other required suppression systems. In addition to the requirements of Section 903.2, the provisions indicated in Table 903.2.12 require the installation of a fire suppression system for certain buildings and areas.

903.2.13 Residential Code. Structures within the scope of the International Residential Code which exceed 5,000 square feet in area, under roof, shall be provided with an automatic fire sprinkler system meeting the requirements of NFPA 13.

903.2.14 During construction. Automatic sprinkler systems required during construction, alteration and demolition operations shall be provided in accordance with Section 3314.

Table 903.2.12
 ADDITIONAL REQUIRED FIRE SUPPRESSION SYSTEMS

SECTION	SUBJECT
914.2.1	Covered and open mall buildings
914.3.1	High-rise buildings
914.4.1	Atriums
914.5.1	Underground structures
914.6.1	Stages
914.7.1	Special amusement buildings
914.8.2	Airport traffic control towers
914.8.3, 914.8.6	Aircraft hangars
914.9	Flammable finishes
914.10	Drying rooms
914.11.1	Ambulatory care facilities
1029.6.2.3	Smoke-protected assembly seating
1103.5.1	Existing Group A occupancies
1103.5.2	Pyroxylin plastic storage in existing buildings
1103.5.3	Existing Group I-2 occupancies
1103.5.4	Existing Group I-2, Condition 2 occupancies
1103.5.4	Pyroxylin plastics
2108.2	Dry cleaning plants
2108.3	Dry cleaning machines
2309.3.2.6.2	Hydrogen motor fuel-dispensing area canopies
2404.2	Spray finishing in Group A, E, I or R
2404.4	Spray booths and spray rooms
2405.2	Dip-tank rooms in Group A, I or R
2405.4.1	Dip tanks
2405.9.4	Hardening and tempering tanks
2703.10	HPM facilities
2703.10.1.1	HPM work station exhaust
2703.10.2	HPM gas cabinets and exhausted enclosures
2703.10.3	HPM exit access corridor
2703.10.4	HPM exhaust ducts
2703.10.4.1	HPM noncombustible ducts
2703.10.4.2	HPM combustible ducts
2807.3	Lumber production conveyor enclosures
2808.7	Recycling facility conveyor enclosures
3006.1	Class A and B ovens
3006.2	Class C and D ovens
Table 3206.2	Storage fire protection
3206.4	Storage
3704.5	Storage of more than 1,000 cubic feet of loose combustible fibers
5003.8.4.1	Gas rooms
5003.8.5.3	Exhausted enclosures
5004.5	Indoor storage of hazardous materials

(continued)

Table 903.2.12 – continued
 ADDITIONAL REQUIRED FIRE SUPPRESSION SYSTEMS

SECTION	SUBJECT
5005.1.8	Indoor dispensing of hazardous materials
5104.4.1	Aerosol product warehouses
5106.3.2	Aerosol display and merchandising areas
5306.2.1	Exterior medical gas storage room
5306.2.2	Interior medical gas storage room
5306.2.3	Medical gas storage cabinet
5606.5.2.1	Storage of smokeless propellant
5606.5.2.3	Storage of small arms primers
5704.3.7.5.1	Flammable and combustible liquid storage rooms
5704.3.8.4	Flammable and combustible liquid storage warehouses
5705.3.7.3	Flammable and combustible liquid Group H-2 or H-3 areas
6004.1.2	Gas cabinets for highly toxic and toxic gas
6004.1.3	Exhausted enclosures for highly toxic and toxic gas
6004.2.2.6	Gas rooms for highly toxic and toxic gas
6004.3.3	Outdoor storage for highly toxic and toxic gas
6504.1.1	Pyroxylin plastic storage cabinets
6504.1.3	Pyroxylin plastic storage vaults
6504.2	Pyroxylin plastic storage and manufacturing

For SI: 1 cubic foot = 0.023 m³.

Sections 903.3.1.2 through 903.3.1.2.3 are deleted in its entirety.

Section 903.3.5 is deleted in its entirety and replaced with the following:

903.3.5 Water supplies. Water supplies for automatic sprinkler systems shall comply with Section 511.4.

Section 903.4.3 is deleted in its entirety and replaced with the following:

903.4.3 Floor control valves. Approved supervised indicating control valves/water flow switches shall be provided at the following locations. ***Control valves shall be operable from ground/floor level.***

1. Multi-story buildings shall be zoned separately by floor.
2. Multi-story multi-family residential buildings that are separated by a breezeway or fire rated assembly can be zoned separately by building section if approved in advance by the fire marshal. The required section control valves shall be in the main sprinkler control valve room.
3. Smoke zones shall be zoned separately. The operation of one sprinkler will actuate the alarm system and the appropriate smoke control equipment.
4. Hazardous areas such as spray booths, flammable liquid storage rooms, hazardous materials control areas, etc. shall be zoned separately. The required zone control valves shall be in an accessible area outside the spray booth, storage room, control area, or in the main sprinkler control valve room.

5. Special systems such as pre-action systems shall be zoned separately.
6. Computer rooms shall be zoned separately. The required zone control valves shall be in an accessible area outside the computer room, or in the main sprinkler control valve room.
7. Subfloor areas shall be zoned separately. The required zone control valves shall be in an accessible area outside the subfloor area, or in the main sprinkler control valve room.
8. Elevator hoist ways shall be zoned separately. The required zone control valve shall be in an accessible area outside the elevator hoist way, or in the main sprinkler control valve room.
9. In racks sprinklers shall be zoned separately.
10. Multi-tenant buildings with different addresses shall be zoned by address and provide the correct address information to the fire department alarm center.
11. As required by the fire marshal.

Section 903.7 is added to read as follows:

903.7 Replacement of missing hydraulic calculation plates. Missing hydraulic calculation plates shall be replaced in accordance with the requirements of Section 901.6.

Exception: With the exception schools, state and county buildings, missing hydraulic calculation plates on sprinkler system risers protecting only light hazard occupancies shall not be replaced until the fire sprinkler system is altered, a tenant improvement occurs, or the system owner voluntarily requests its replacement.

Section 907.1 is deleted in its entirety and replaced with the following:

907.1 General. This section covers the application, installation, performance and maintenance of fire alarm systems and their components in new and existing buildings and structures. The requirements of Section 907.2 are applicable to new buildings and structures. The requirements of Section 907.9 are applicable to existing buildings and structures.

907.1.1 Construction documents. Construction documents for fire alarm systems shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of this code, the International Building Code and relevant laws, ordinances, rules and regulations, as determined by the fire marshal.

907.1.2 Fire alarm shop drawings. Shop drawings for fire alarm systems shall be prepared in accordance with NFPA 72 and submitted for review and approval prior to system installation.

907.1.3 Equipment. Systems and components shall be listed and approved for the purpose for which they are installed.

907.1.3.1 Addressable. Fire control panels shall be addressable unless approved by the fire marshal.

907.1.3.2 Combination system prohibition. Use if a combination fire alarm system is prohibited.

Exception: Interconnection with a building maintenance system listed for compatibility and

approved in advance by the fire marshal.

907.1.3.3 Individual building. One addressable fire alarm control unit shall be installed in each building containing a fire sprinkler or fire alarm system. The use of separate fire alarm control panels in tenant spaces is prohibited. The fire alarm control unit shall be capable of handling the total number of devices expected at full tenant occupancy to avoid fire alarm control unit upgrades for each tenant.

907.1.3.4 Fire alarm control unit location. Fire alarm and sprinkler monitoring system control units shall be in a riser room or approved location.

Section 907.2.10 is deleted and replaced with the following:

907.2.10 Group R-4. Fire alarm systems and smoke alarms shall be installed in Group R-4 occupancies as required in Sections 907.2.10.1 through 907.2.10.3.

907.2.10.1 Manual fire alarm system. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group R-4 occupancies.

Exceptions:

1. A manual fire alarm system is not required in buildings not more than two stories in height where all individual *sleeping units* and contiguous attic and crawl spaces to those units are separated from each other and public or common areas by not less than 1-hour *fire partitions* and each individual *sleeping unit* has an *exit* directly to a *public way*, *egress court* or yard.
2. Manual fire alarm boxes are not required throughout the building where all of the following conditions are met:
 - 2.1. The building is equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2.
 - 2.2. The notification appliances will activate upon sprinkler water flow.
 - 2.3. Not fewer than one manual fire alarm box is installed at an approved location.
3. Manual fire alarm boxes in resident or patient sleeping areas shall not be required at *exits* where located at all nurses' control stations or other constantly attended staff locations, provided such stations are visible and continuously accessible and that the distances of travel required in Section 907.4.2.1 are not exceeded.

907.2.10.2 Automatic smoke detection system. An automatic smoke detection system that activates the occupant notification system in accordance with Section 907.5 shall be installed in *corridors*, waiting areas open to *corridors* and *habitable spaces* other than *sleeping units* and kitchens.

Exceptions:

1. Smoke detection in *habitable spaces* is not required where the facility is equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1.
2. An automatic smoke detection system is not required in buildings that do not have interior *corridors* serving *sleeping units* and where each *sleeping unit* has a *means of egress* door opening directly to an *exit* or to an exterior *exit access* that leads directly to an exit.

907.2.10.3 Smoke alarms. Single- and multiple-station smoke alarms shall be installed in accordance with Section 907.2.11.

Section 907.2.11 is deleted and replaced with the following:

907.2.11 Single- and multiple-station smoke alarms. Listed single- and multiple-station smoke alarms complying with UL 217 shall be installed in accordance with Sections 907.2.11.1 through 907.2.11.7 and NFPA 72.

907.2.11.1 Group R-1. Single- or multiple-station smoke alarms shall be installed in all of the following locations in Group R-1:

1. In sleeping areas.
2. In every room in the path of the *means of egress* from the sleeping area to the door leading from the *sleeping unit*.
3. In each story within the *sleeping unit*, including *basements*. For *sleeping units* with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.

907.2.11.2 Groups R-2, R-3, R-4 and I-1. Single or multiple-station smoke alarms shall be installed and maintained in Groups R-2, R-3, R-4 and I-1 regardless of *occupant load* at all of the following locations:

1. On the ceiling or wall outside of each separate sleeping area in the immediate vicinity of bedrooms.
2. In each room used for sleeping purposes.
3. In each story within a *dwelling unit*, including *basements* but not including crawl spaces and uninhabitable attics. In *dwelling units* or *dwelling units* with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.

907.2.11.3 Installation near cooking appliances. Smoke alarms shall not be installed in the following locations unless this would prevent placement of a smoke alarm in a location required by Section 907.2.11.1 or 907.2.11.2:

1. Ionization smoke alarms shall not be installed less than 20 feet (6096 mm) horizontally from a permanently installed cooking appliance.
2. Ionization smoke alarms with an alarm-silencing switch shall not be installed less than 10 feet (3048 mm) horizontally from a permanently installed cooking appliance.
3. Photoelectric smoke alarms shall not be installed less than 6 feet (1829 mm) horizontally from a permanently installed cooking appliance.

907.2.11.4 Installation near bathrooms. Smoke alarms shall be installed not less than 3 feet (914 mm) horizontally from the door or opening of a bathroom that contains a bathtub or shower unless this would prevent placement of a smoke alarm required by Section 907.2.11.1 or 907.2.11.2.

907.2.11.5 Interconnection. Where more than one smoke alarm is required to be installed within an individual *dwelling unit* or *sleeping unit* in Group R or I-1 occupancies, the smoke alarms shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms in the

individual unit. Physical interconnection of smoke alarms shall not be required where listed wireless alarms are installed and all alarms sound upon activation of one alarm. The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed.

907.2.11.6 Power source. In new construction, required smoke alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source and shall be equipped with a battery backup. Smoke alarms with integral strobes that are not equipped with battery back-up shall be connected to an emergency electrical system in accordance with Section 604. Smoke alarms shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than as required for overcurrent protection.

Exception: Smoke alarms are not required to be equipped with battery backup where they are connected to an emergency electrical system that complies with Section 604.

907.2.11.7 Smoke detection system. Smoke detectors listed in accordance with UL 268 and provided as part of the building fire alarm system shall be an acceptable alternative to single- and multiple-station *smoke alarms* and shall comply with the following:

1. The fire alarm system shall comply with all applicable requirements in Section 907.
2. Activation of a smoke detector in a *dwelling unit* or *sleeping unit* shall initiate alarm notification in the *dwelling unit* or *sleeping unit* in accordance with Section 907.5.2.
3. Activation of a smoke detector in a *dwelling unit* or *sleeping unit* shall not activate alarm notification appliances outside of the *dwelling unit* or *sleeping unit*, provided that a supervisory signal is generated and monitored in accordance with Section 907.6.6.

Section 907.2.12 is deleted and replaced with the following:

907.2.12 Special amusement buildings. An automatic smoke detection system shall be provided in special amusement buildings in accordance with Sections 907.2.12.1 through 907.2.12.3.

907.2.12.1 Alarm. Activation of any single smoke detector, the *automatic sprinkler system* or any other automatic fire detection device shall immediately activate an audible and visible alarm at the building at a constantly attended location from which emergency action can be initiated, including the capability of manual initiation of requirements in Section 907.2.12.2.

907.2.12.2 System response. The activation of two or more smoke detectors, a single smoke detector equipped with an alarm verification feature, the *automatic sprinkler system* or other *approved* fire detection device shall automatically do all of the following:

1. Cause illumination of the *means of egress* with light of not less than 1-foot candle (11 lux) at the walking surface level.
2. Stop any conflicting or confusing sounds and visual distractions.
3. Activate an *approved* directional *exit marking* that will become apparent in an emergency.
4. Activate a prerecorded message, audible throughout the special amusement building, instructing patrons to proceed to the nearest exit. Alarm signals used in conjunction with the prerecorded message shall produce a sound that is distinctive from other sounds used during normal operation.

907.2.12.3 Emergency voice/alarm communication system. An emergency voice/alarm communication system, which is also allowed to serve as a public address system, shall be installed in accordance with Section 907.5.2.2 and be audible throughout the entire special amusement building.

Section 907.2.13 is deleted and replaced with the following:

907.2.13 High-rise buildings. High-rise buildings shall be provided with an automatic smoke detection system in accordance with Section 907.2.13.1, a fire department communication system in accordance with Section 907.2.13.2 and an emergency voice/alarm communication system in accordance with Section 907.5.2.2.

Exceptions:

1. Airport traffic control towers in accordance with Section 907.2.22 of this code and Section 412 of the *International Building Code*.
2. Open parking garages in accordance with Section 406.5 of the *International Building Code*.
3. Buildings with an occupancy in Group A-5 in accordance with Section 303.1 of the *International Building Code*.
4. Low-hazard special occupancies in accordance with Section 503.1.1 of the *International Building Code*.
5. Buildings with an occupancy in Group H-1, H-2 or H-3 in accordance with Section 415 of the *International Building Code*.
6. In Group I-1 and I-2 occupancies, the alarm shall sound at a constantly attended location and occupant notification shall be broadcast by the emergency voice/alarm communication system.

907.2.13.1 Automatic smoke detection. Automatic smoke detection in high-rise buildings shall be in accordance with Sections 907.2.13.1.1 and 907.2.13.1.2.

907.2.13.1.1 Area smoke detection. Area smoke detectors shall be provided in accordance with this section. Smoke detectors shall be connected to an automatic fire alarm system. The activation of any detector required by this section shall activate the emergency voice/alarm communication system in accordance with Section 907.5.2.2. In addition to smoke detectors required by Sections 907.2.1 through 907.2.10, smoke detectors shall be located as follows:

1. In each mechanical equipment, electrical, transformer, telephone equipment or similar room that is not provided with sprinkler protection.
2. In each elevator machine room, machinery space, control room and control space and in elevator lobbies.

[M] 907.2.13.1.2 Duct smoke detection. Duct smoke detectors complying with Section 907.3.1 shall be located as follows:

1. In the main return air and exhaust air plenum of each air-conditioning system having a capacity greater than 2,000 cubic feet per minute (cfm) (0.94 m³/s). Such detectors shall be located in a serviceable area downstream of the last duct inlet.

2. At each connection to a vertical duct or riser serving two or more stories from a return air duct or plenum of an air-conditioning system. In Group R-1 and R-2 occupancies, a smoke detector is allowed to be used in each return air riser carrying not more than 5,000 cfm (2.4 m³/s) and serving not more than 10 air-inlet openings.

907.2.13.2 Fire department communication system. Where a wired communication system is *approved* in lieu of an emergency responder radio coverage system in accordance with Section 510, the wired fire department communication system shall be designed and installed in accordance with NFPA 72 and shall operate between a *fire command center* complying with Section 508, elevators, elevator lobbies, emergency and standby power rooms, fire pump rooms, areas of refuge and inside *interior exit stairways*. The fire department communication device shall be provided at each floor level within the *interior exit stairway*.

907.2.13.3 Multiple-channel voice evacuation. In buildings with an occupied floor more than 120 feet above the lowest level of fire department vehicle access, voice evacuation systems for high-rise buildings shall be multiple-channel systems.

Section 907.2.14 is deleted and replaced with the following:

907.2.14 Atriums connecting more than two stories. A fire alarm system shall be installed in occupancies with an atrium that connects more than two stories, with smoke detection in locations required by a rational analysis in Section 909.4 and in accordance with the system operation requirements in Section 909.17. The system shall be activated in accordance with Section 907.5. Such occupancies in Group A, E or M shall be provided with an emergency voice/alarm communication system complying with the requirements of Section 907.5.2.2.

Section 907.2.15 is deleted and replaced with the following:

907.2.15 High-piled combustible storage areas. An automatic smoke detection system shall be installed throughout *high-piled combustible storage* areas where required by Section 3206.5.

Section 907.2.16 is deleted and replaced with the following:

907.2.16 Aerosol storage uses. Aerosol storage rooms and general-purpose warehouses containing aerosols shall be provided with an *approved* manual fire alarm system where required by this code.

Section 907.2.17 is deleted and replaced with the following:

907.2.17 Lumber, wood structural panel and veneer mills. Lumber, wood structural panel and veneer mills shall be provided with a manual fire alarm system.

Section 907.2.18 is deleted and replaced with the following:

907.2.18 Underground buildings with smoke control systems. Where a smoke control system is installed in an underground building in accordance with the *International Building Code*, automatic smoke detectors shall be provided in accordance with Section 907.2.18.1.

907.2.18.1 Smoke detectors. Not fewer than one smoke detector *listed* for the intended purpose shall be installed in all of the following areas:

1. Mechanical equipment, electrical, transformer, telephone equipment, elevator machine or similar

rooms.

2. Elevator lobbies.

3. The main return and exhaust air plenum of each air-conditioning system serving more than one story and located in a serviceable area downstream of the last duct inlet.

4. Each connection to a vertical duct or riser serving two or more floors from return air ducts or plenums of heating, ventilating and air-conditioning systems, except that in Group R occupancies, a *listed* smoke detector is allowed to be used in each return air riser carrying not more than 5,000 cfm (2.4 m³/s) and serving not more than 10 air inlet openings.

907.2.18.2 Alarm required. Activation of the smoke control system shall activate an audible alarm at a constantly attended location.

Section 907.2.19 is deleted and replaced with the following:

907.2.19 Deep underground buildings. Where the lowest level of a structure is more than 60 feet (18 288 mm) below the finished floor of the lowest *level of exit discharge*, the structure shall be equipped throughout with a manual fire alarm system, including an emergency voice/ alarm communication system installed in accordance with Section 907.5.2.2.

Section 907.2.20 is deleted and replaced with the following:

907.2.20 Covered and open mall buildings. Where the total floor area exceeds 50,000 square feet (4645 m²) within either a covered mall building or within the perimeter line of an open mall building, an emergency voice/ alarm communication system shall be provided. Emergency voice/alarm communication systems serving a mall, required or otherwise, shall be accessible to the fire department. The system shall be provided in accordance with Section 907.5.2.2.

Section 907.2.21 is deleted and replaced with the following:

907.2.21 Residential aircraft hangars. Not fewer than one single-station smoke alarm shall be installed within a residential aircraft hangar as defined in Chapter 2 of the *International Building Code* and shall be interconnected into the residential smoke alarm or other sounding device to provide an alarm that will be audible in all sleeping areas of the *dwelling*.

Section 907.2.22 is deleted and replaced with the following:

907.2.22 Airport traffic control towers. An automatic smoke detection system that activates the occupant notification system in accordance with Section 907.5 shall be provided in airport control towers in accordance with Sections 907.2.22.1 and 907.2.22.2.

Exception: Audible appliances shall not be installed within the control tower cab.

907.2.22.1 Airport traffic control towers with multiple exits and automatic sprinklers. Airport traffic control towers with multiple *exits* and equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 shall be provided with smoke detectors in all of the following locations:

1. Airport traffic control cab.

2. Electrical and mechanical equipment rooms.
3. Airport terminal radar and electronics rooms.
4. Outside each opening into *interior exit stairways*.
5. Along the single *means of egress* permitted from observation levels.
6. Outside each opening into the single *means of egress* permitted from observation levels.

907.2.22.2 Other airport traffic control towers. Air- port traffic control towers with a single *exit* or where sprinklers are not installed throughout shall be provided with smoke detectors in all of the following locations:

1. Airport traffic control cab.
2. Electrical and mechanical equipment rooms.
3. Airport terminal radar and electronics rooms.
4. Office spaces incidental to the tower operation.
5. Lounges for employees, including sanitary facilities.
6. *Means of egress*.
7. Accessible utility shafts.

Section 907.2.23 is deleted and replaced with the following:

907.2.23 Battery rooms. An automatic smoke detection system shall be installed in areas containing stationary storage battery systems with a liquid capacity of more than 50 gallons (189 L).

Section 907.2.24 is added and reads as follows:

907.2.24 Capacitor energy storage systems. An automatic smoke detection system shall be installed in areas containing capacitor energy storage systems as required by Section 1206.3.

Section 912.2.1 is deleted and replaced with the following:

912.2.1 Visible location. Fire department connections shall be located on the street side of buildings, fully visible and recognizable from the street or nearest point of fire department vehicle access or as otherwise approved by the fire marshal. The fire department connection shall be indicated by an approved sign mounted on the street front or on the side of the building. Such sign shall have the letters “FDC” not less than 6 inches (152 mm) high and words in letters not less than 2 inches (51 mm) high or an arrow to indicate the location. Such signs shall be subject to the approval of the fire marshal.

Section 912.6 is deleted and replaced with the following:

912.6 Backflow protection. The potable water supply to automatic sprinkler and standpipe systems shall be protected against backflow in accordance with the City of Avondale Engineering Division requirements.

Section 1103.5 is deleted in its entirety and replaced with the following:

1103.5 Sprinkler systems. An automatic sprinkler system shall be provided in existing buildings in accordance with Sections 1103.5.1 through 1103.5.7.

1103.5.1 Group A-2. Where alcoholic beverages are consumed in a Group A-2 occupancy having an occupant load of 300 or more, the fire area containing the Group A-2 occupancy shall be equipped with an automatic sprinkler system shall be installed in accordance with Section 903.3.1.1.

1103.5.2 Group I-2. In Group I-2, an automatic sprinkler system shall be provided in accordance with Section 1105.9.

1103.5.3 Group I-2 Condition 2. In addition to the requirements of Section 1103.5.2, existing buildings of Group I-2 Condition 2 occupancy shall be equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1. The automatic sprinkler system shall be installed within two years of the Notice of Violation date.

1103.5.4 Pyroxylin plastics. An automatic sprinkler system shall be provided throughout existing buildings where cellulose nitrate film or pyroxylin plastics are manufactured, stored or handled in quantities exceeding 100 pounds (45 kg). Vaults located within buildings for the storage of raw pyroxylin shall be protected with an approved automatic sprinkler system capable of discharging 1.66 gallons per minute per square foot (68 L/min/m²) over the area of the vault.

1103.5.5 Retrofit in Single-family Dwellings, Group R-3, or R-4 occupancies. An automatic fire sprinkler system shall be provided throughout a single-family dwelling, Group R-3, or R-4 occupancy when one or more additions increase the new total building area to exceed 5,000 square feet (464 m²). The calculated area shall include all livable space and the area of any attached garage, carports, aircraft hangar or basement.

1103.5.6 Building additions. Building additions in existing occupancies shall be protected by an automatic fire sprinkler when:

1. Building additions equal 50 percent or more of the existing building floor area, or exceed 10,000 square feet (929 m²), whichever is less.
2. Two or more building permits related to increased square footage are issued over any three consecutive years where:
 - a. The aggregate of the additions exceeds 50 percent of the square footage of the building as of July 1, 2017.
 - b. The new total area of the building is greater than 10,000 square feet (929 m²).
3. Building additions are required to be protected in accordance with International Building Code or International Residential Code.

An automatic fire sprinkler system shall be installed when 50 percent or more of the roof assembly is replaced or repaired due to fire damage or structure failure, or when the removal of existing fire-rated assemblies results in an increase of the original basic allowable area.

1103.5.7 Change of use. An automatic sprinkler system shall be installed throughout when a building, regardless

of the building area, undergoes a change of occupancy to a higher hazard level as defined by Table 1103.5.7.

TABLE 1103.5.7 HAZARD LEVEL		
HAZARD LEVEL	1997 UBC OCCUPANCY TYPE	2102 IFC OCCUPANCY TYPE
1 (highest)	A, H, I, R-1, R-2	A, B-AGCF ¹ , H, I, R-1, R-2, R-4
2	F-1, S-1, S-5	F-1, S-1
3	E, F-2, S-2, S-3, S-4	E, F-2, S-2
4 (lowest)	B, M, R-3, U	B, M, R-3, U

1. Business – Ambulatory Group Care Facility

Section 1103.11 is added to read as follows:

1103.11 Ceiling tiles. Ceiling tiles shall be maintained in place.

Chapter 12 is deleted in its entirety and replaced with the following:

Title: Chapter 12: ENERGY SYSTEMS

SECTION 1201 GENERAL

Section 1201.1 Scope. The provisions of this chapter shall apply to the installation, operation and maintenance of energy systems used for generating or storing energy. It shall not apply to equipment associated with the generation, control, transformation, transmission, or distribution of energy installations that is under the exclusive control of an electric utility or lawfully designated agency.

Section 1201.2 Electrical wiring and equipment. Electrical wiring and equipment used in connection with energy systems shall be installed and maintained in accordance with Chapter 12 and NFPA 70.

Section 1201.3 Mixed system installation. Where approved, the aggregate kWh energy in a fire area shall not exceed the maximum quantity specified for any of the energy systems in this chapter. Where required by the fire marshal, a hazard mitigation analysis shall be provided and approved in accordance with Section 104.7.2 to evaluate any potential adverse interaction between the various energy systems and technologies.

SECTION 1202 DEFINITIONS

1202.1 Definitions. The following terms are defined in Chapter 2:

BATTERY SYSTEM, STATIONARY STORAGE.

BATTERY TYPES.

LEAD-ACID BATTERY.

CAPACITOR ARRAY.

CAPACITOR ENERGY STORAGE SYSTEM.

CRITICAL CIRCUIT.

EMERGENCY POWER SYSTEM.

ENERGY MANAGEMENT SYSTEM.

FUEL CELL POWER SYSTEM, STATIONARY.

STANDBY POWER SYSTEM.

STATIONARY BATTERY ARRAY.

STATIONARY FUEL CELL POWER SYSTEM.

SECTION 1203 EMERGENCY AND STANDBY POWER SYSTEMS

1203.1 General. Emergency power systems and standby power systems required by this code or the International Building Code shall comply with Sections 1203.1.1 through 1203.1.9.

1203.1.1 Stationary generators. Stationary emergency and standby power generators required by this code shall be listed in accordance with UL 2200. Associated flammable or combustible liquid tanks shall also comply with Chapters 50 and 57.

1203.1.2 Fuel line piping protection. Fuel lines supplying a generator set inside a high-rise building shall be separated from areas of the building other than the room the generator is located in by an approved method, or an assembly that has a fire-resistance rating of not less than 2 hours. Where the building is protected throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1, the required fire-resistance rating shall be reduced to 1 hour.

1203.1.3 Installation. Emergency power systems and standby power systems shall be installed in accordance with the International Building Code, NFPA 70, NFPA 110 and NFPA 111.

1203.1.4 Load transfer. Emergency power systems shall automatically provide secondary power within 10 seconds after primary power is lost, unless specified otherwise in this code. Standby power systems shall automatically provide secondary power within 60 seconds after primary power is lost, unless specified otherwise in this code.

1203.1.5 Load duration. Emergency power systems and standby power systems shall be designed to provide the required power for a minimum duration of 2 hours without being refueled or recharged, unless specified otherwise in this code.

1203.1.6 Uninterruptable power source. An uninterrupted source of power shall be provided for equipment where required by the manufacturer's instructions, the listing, this code or applicable referenced standards.

1203.1.7 Interchangeability. Emergency power systems shall be an acceptable alternative for installations that require standby power systems.

1203.1.8 Group I-2 occupancies. In Group I-2 occupancies located in flood hazard areas established in Section 1612.3 of the International Building Code and where new or replacement essential electrical systems are installed and where new essential electrical system generators are installed, the systems and generators shall be located and installed in accordance with ASCE 24. Where connections for hook up of temporary generators are provided, the connections shall be located at or above the elevation required in ASCE 24.

1203.1.9 Maintenance. Existing installations shall be maintained in accordance with the original approval and Section 1203.4.

1203.2 Where required. Emergency and standby power systems shall be provided where required by Sections 1203.2.1 through 1203.2.18.

1203.2.1 Ambulatory care facilities. Essential electrical systems for ambulatory care facilities shall be in accordance with Section 422.6 of the International Building Code.

1203.2.2 Elevators and platform lifts. Standby power shall be provided for elevators and platform lifts as required in Sections 606.2, 1009.4.1, and 1009.5.

1203.2.3 Emergency responder radio coverage systems. Standby power shall be provided for emergency responder radio coverage systems as required in Section 510.4.2.3. The standby power supply shall be capable of operating the emergency responder radio coverage system for a duration of not less than 24 hours.

1203.2.4 Emergency voice/alarm communication systems. Emergency power shall be provided for emergency voice/alarm communication systems as required in Section 907.5.2.2.5. The system shall be capable of powering

the required load for a duration of not less than 24 hours, as required in NFPA 72.

1203.2.5 Exit signs. Emergency power shall be provided for exit signs as required in Section 1013.6.3. The system shall be capable of powering the required load for a duration of not less than 90 minutes.

1203.2.6 Gas detection systems. Emergency power shall be provided for gas detection systems where required by Sections 1203.2.9 and 1203.2.16. Standby power shall be provided for gas detection systems where required by Section 916.5.

1203.2.7 Group I-2 occupancies. Essential electrical systems for Group I-2 occupancies shall be in accordance with Section 407.11 of the International Building Code.

1203.2.8 Group I-3 occupancies. Power-operated sliding doors or power-operated locks for swinging doors in Group I-3 occupancies shall be operable by a manual release mechanism at the door. Emergency power shall be provided for the doors and locks.

Exceptions:

1. Emergency power is not required in facilities where provisions for remote locking and unlocking of occupied rooms in Occupancy Condition 4 are not required as set forth in the International Building Code.
2. Emergency power is not required where remote mechanical operating releases are provided.

1203.2.9 Hazardous materials. Emergency and standby power shall be provided in occupancies with hazardous materials as required in the following sections:

1. Sections 5004.7 and 5005.1.5 for hazardous materials.
2. Sections 6004.2.2.8 and 6004.3.4.2 for highly toxic and toxic gases.
3. Section 6204.1.11 for organic peroxides.

1203.2.10 High-rise buildings. Standby power and emergency power shall be provided for high-rise buildings as required in Section 403 of the International Building Code and shall be in accordance with Section 1203.

1203.2.11 Horizontal sliding doors. Standby power shall be provided for horizontal sliding doors as required in Section 1010.1.4.3. The standby power supply shall have a capacity to operate not fewer than 50 closing cycles of the door.

1203.2.12 Hydrogen fuel gas rooms. Standby power shall be provided for hydrogen fuel gas rooms as required by Section 5808.7.

1203.2.13 Laboratory suites. Standby or emergency power shall be provided in accordance with Section 5004.7 where laboratory suites are located above the sixth story above grade plane or located in a story below grade plane.

1203.2.14 Means of egress illumination. Emergency power shall be provided for means of egress illumination in accordance with Sections 1008.3 and 1104.5.1.

1203.2.15 Membrane structures. Standby power shall be provided for auxiliary inflation systems in permanent membrane structures in accordance with Section 2702 of the International Building Code. Auxiliary inflation systems shall be provided in temporary air-supported and air inflated membrane structures in accordance with Section 3103.10.4.

1203.2.16 Semiconductor fabrication facilities. Emergency power shall be provided for semiconductor fabrication facilities as required in Section 2703.15.

1203.2.17 Smoke control systems. Standby power shall be provided for smoke control systems as required in Section 909.11.

1203.2.18 Underground buildings. Emergency and standby power shall be provided in underground buildings as required in Section 405 of the International Building Code and shall be in accordance with Section 1203.

1203.3 Critical circuits. Required critical circuits shall be protected using one of the following methods:

1. Cables used for survivability of required critical circuits shall be listed in accordance with UL 2196 and shall have a fire resistance rating of not less than 1 hour.
2. Electrical circuit protective systems shall have a fire resistance rating of not less than 1 hour. Electrical circuit protective systems shall be installed in accordance with their listing requirements.
3. Construction having a fire-resistance rating of not less than 1 hour.

1203.4 Maintenance. Emergency and standby power systems shall be maintained in accordance with NFPA 110 and NFPA 111 such that the system is capable of supplying service within the time specified for the type and duration required.

1203.4.1 Group I-2. In Group I-2 occupancies, emergency and standby power systems shall be maintained in accordance with NFPA 99.

1203.4.2 Schedule. Inspection, testing and maintenance of emergency and standby power systems shall be in accordance with an approved schedule established upon completion and approval of the system installation.

1203.4.3 Records. Records of the inspection, testing and maintenance of emergency and standby power systems shall include the date of service, name of the servicing technician, a summary of conditions noted and a detailed description of any conditions requiring correction and what corrective action was taken. Such records shall be maintained.

1203.4.4 Switch maintenance. Emergency and standby power system transfer switches shall be included in the inspection, testing and maintenance schedule required by Section 1203.4.2. Transfer switches shall be maintained free from accumulated dust and dirt. Inspection shall include examination of the transfer switch contacts for evidence of deterioration. When evidence of contact deterioration is detected, the contacts shall be replaced in accordance with the transfer switch manufacturer's instructions.

1203.5 Operational inspection and testing. Emergency power systems, including all appurtenant components, shall be inspected and tested under load in accordance with NFPA 110 and NFPA 111.

Exception: Where the emergency power system is used for standby power or peak load shaving, such use shall be recorded and shall be allowed to be substituted for scheduled testing of the generator set, provided that appropriate records are maintained.

1203.5.1 Group I-2. In Group I-2 occupancies, emergency and standby power systems shall be inspected and tested under load in accordance with NFPA 99.

1203.5.2 Transfer switch test. The test of the transfer switch shall consist of electrically operating the transfer switch from the normal position to the alternate position and then return to the normal position.

1203.6 Supervision of maintenance and testing. Routine maintenance, inspection and operational testing shall be overseen by a properly instructed individual.

SECTION 1204 SOLAR PHOTOVOLTAIC POWER SYSTEMS

1204.1 General. Solar photovoltaic systems shall be installed in accordance with Sections 1204.2 through 1204.5, and the International Building Code or International Residential Code. The electrical portion of solar PV systems shall be installed in accordance with NFPA 70.

1204.1.1 Permits. Permits shall be obtained for solar voltaic systems.

1204.1.2 Marking. Marking is required on interior and exterior direct-current (DC) conduit, enclosures, raceways, cable assemblies, junction boxes, combiner boxes and disconnects.

1204.1.2.1 Materials. The materials used for marking shall be reflective, weather resistant and suitable for the environment. Marking as required in Sections 1204.1.2 through 1204.1.6 shall have all letters capitalized with a minimum height of 3/8 inch (9.5 mm) white on red background.

1204.1.2.2 Marking content. The marking shall contain the words “WARNING: PHOTOVOLTAIC POWER SOURCE.”

1204.1.2.3 Main service disconnect. The marking shall be placed adjacent to the main service disconnect in a location clearly visible from the location where the disconnect is operated.

1204.1.3 Location of marking. Marking shall be placed on interior and exterior DC conduit, raceways, enclosures and cable assemblies every 10 feet (3048 mm), within 1 foot (305 mm) of turns or bends and within 1 foot (305 mm) above and below penetrations of roof/ceiling assemblies, walls or barriers.

1204.2 Access and pathways. Roof access, pathways, and spacing requirements shall be provided in accordance with Sections 1204.2.1 through 1204.3.3. Pathways shall be over areas capable of supporting fire fighters accessing the roof. Pathways shall be in areas with minimal obstructions, such as vent pipes, conduit or mechanical equipment.

Residential structures shall be designed so that each photovoltaic array is not greater than 150 feet (45 720 mm) by 150 feet (45 720 mm) in either axis.

Exception:

1. Detached, nonhabitable Group U structures including, but not limited to, detached garages serving Group R-3 buildings, parking shade structures, carports, solar trellises and similar structures.
2. Roof access, pathways and spacing requirements need not be provided where the fire marshal has determined that rooftop operations will not be employed.

1204.2.1 Solar photovoltaic systems for Group R-3 buildings. Solar photovoltaic systems for Group R-3 buildings shall comply with Sections 1204.2.1.1 through 1204.2.1.5.

Exceptions:

1. The requirements shall not apply to structures designed and constructed in accordance with the International Residential Code.
2. These requirements shall not apply to roofs with slopes of 2 units vertical in 12 units horizontal or less.

1204.2.1.1 Roof access points. Roof access points shall be located in areas that do not require the placement of ground ladders over openings such as windows or doors and located at strong points of building construction in locations where the access point does not conflict with overhead obstructions such as tree limbs, wires, or signs.

1204.2.1.2 Residential buildings with hip roof layouts. Panels or modules installed on residential buildings with hip roof layouts shall be located in a manner that provides two 3-foot-wide (914 mm) clear access pathway from the eave to the ridge on each roof slope where panels or modules are located.

1204.2.1.3 Residential buildings with a single ridge. Panels/modules installed on residential buildings with a single ridge shall be in a manner that provides two 3-foot-wide (914 mm) access pathways from the eave to the ridge on each roof slope where panels/modules are located.

1204.2.1.4 Residential buildings with roof hips and valleys. Panels or modules installed on residential buildings with roof hips and valleys shall be located not closer than 18 inches (457 mm) to a hip or a valley where panels or modules are to be placed on both sides of a hip or valley. Where panels are to be located on only one side of a hip or valley that is of equal length, the panels shall be permitted to be placed directly adjacent to the hip or valley.

1204.2.1.5 Residential building smoke ventilation. Panels/modules installed on residential buildings shall be located no higher than 3 feet (914 mm) below the ridge.

1204.2.2 Emergency escape and rescue openings. Panels and modules installed on Group R-3 buildings shall not be placed on the portion of a roof that is below an emergency escape and rescue opening. A pathway of not less than 36 inches (914 mm) wide shall be provided to the emergency escape and rescue opening.

1204.3 Other than Group R-3 buildings. Access to systems for buildings, other than those containing Group R-3 occupancies, shall be provided in accordance with Sections 1204.3.1 through 1204.3.3.

Exception: Where it is determined by the fire marshal that the roof configuration is similar to that of a Group R-3 occupancy, the residential access and ventilation requirements in Sections 1204.2.1.1 through 1204.2.1.5 are a suitable alternative.

1204.3.1 Perimeter pathways. There shall be a minimum 6-foot-wide (1829 mm) clear perimeter around the edges of the roof.

Exception: Where either axis of the building is 250 feet (76 200 mm) or less, the clear perimeter around the edges of the roof shall be permitted to be reduced to a minimum width of 4 feet (1219 mm).

Interior pathways. Interior pathways shall be provided between array sections to meet the following requirements:

1. Pathways shall be provided at intervals not greater than 150 feet (45 720 mm) throughout the length and width of the roof.
2. A pathway not less than 4 feet (1219 mm) wide in a straight line to roof standpipes or ventilation hatches.
3. A pathway not less than 4 feet (1219 mm) wide around roof access hatches, with no fewer than one such pathway to a parapet or roof edge.
4. The pathway shall be over areas capable of supporting the live load of firefighters accessing the roof.

1204.3.3 Smoke ventilation. The solar installation shall be designed to meet the following requirements:

1. Where nongravity-operated smoke and heat vents occur, a pathway not less than 4 feet (1219 mm) wide shall be provided bordering all sides.
2. Smoke ventilation options between array sections shall be one of the following:
 - 2.1. A pathway not less than 8 feet (2438 mm) wide.
 - 2.2. Where gravity-operated dropout smoke and heat vents occur, a pathway not less than 4 feet (1219 mm) wide on not fewer than one side.
 - 2.3. A pathway not less than 4 feet (1219 mm) wide bordering 4-foot by 8-foot (1219 mm by 2438 mm)

venting cutouts every 20 feet (6096 mm) on alternating sides of the pathway.

1204.4 Ground-mounted photovoltaic panel systems. Ground-mounted photovoltaic panel systems shall comply with Section 1204.1 and this section. Setback requirements shall not apply to ground-mounted, free-standing photovoltaic arrays. A clear, brush-free area of 10 feet (3048 mm) shall be required for ground-mounted photovoltaic arrays.

1204.5 Buildings with rapid shutdown. Buildings with rapid shutdown solar photovoltaic systems shall have permanent labels in accordance with Sections 1204.5.1 through 1204.5.3.

1204.5.1 Rapid shutdown type. The type of solar photovoltaic system rapid shutdown shall be labeled with one of the following:

1. For solar photovoltaic systems that shut down the array and the conductors leaving the array, a label shall be provided. The first two lines of the label shall be uppercase characters with a minimum height of 3/8 inch (10 mm) in black on a yellow background. The remaining characters shall be uppercase with a minimum height of 3/16 inch (5 mm) in black on a white background. The label shall be in accordance with Figure 1204.5.1(1) and state the following:

SOLAR PV SYSTEM EQUIPPED WITH
RAPID SHUTDOWN. TURN RAPID
SHUTDOWN SWITCH TO THE "OFF"
POSITION TO SHUT DOWN PV SYSTEM
AND REDUCE SHOCK HAZARD IN
ARRAY.

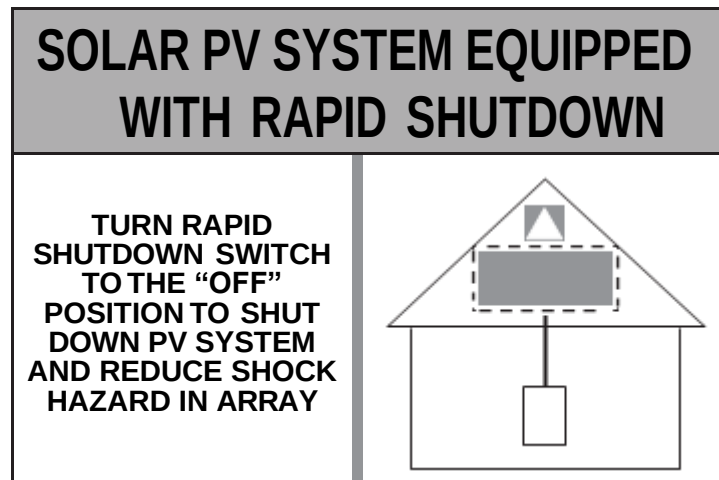


FIGURE 1204.5.1(1)
LABEL FOR SOLAR PV SYSTEMS THAT REDUCE SHOCK HAZARD WITHIN ARRAY AND SHUT DOWN CONDUCTORS LEAVING ARRAY

2. For photovoltaic systems that only shut down conductors leaving the array, a label shall be provided. The first two lines of the label shall be uppercase characters with a minimum height of 3/8 inch (10 mm) in white on a red background and the remaining characters shall be capitalized with a minimum height of 3/16 inch (5 mm) in black on a white background. The label shall be in accordance with Figure 1204.5.1(2) and state the following:

THIS SOLAR PV SYSTEM EQUIPPED
WITH RAPID SHUTDOWN. TURN RAPID
SHUTDOWN SWITCH TO THE “OFF”
POSITION TO SHUT DOWN CONDUCTORS
OUTSIDE THE ARRAY. CONDUCTORS
WITHIN ARRAY REMAIN
ENERGIZED IN SUNLIGHT.

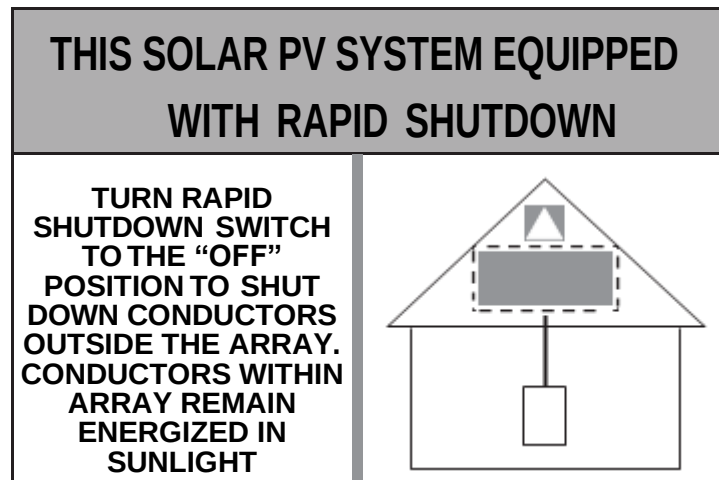


FIGURE 1204.5.1(2)
LABEL FOR SOLAR PV SYSTEMS THAT ONLY SHUT DOWN CONDUCTORS LEAVING THE ARRAY

1204.5.1.1 Diagram. The labels in Section 1204.5.1 shall include a simple diagram of a building with a roof. Diagram sections in red signify sections of the solar photovoltaic system that are not shut down when the rapid shutdown switch is turned off.

1204.5.1.2 Location. The rapid shutdown label in Section 1204.5.1 shall be located not greater than 3 feet (914 mm) from the service disconnecting means to which the photovoltaic systems are connected and shall indicate the location of all identified rapid shutdown switches if not at the same location.

1204.5.2 Buildings with more than one rapid shutdown type. Solar photovoltaic systems that contain rapid shutdown in accordance with both Items 1 and 2 of Section 1204.5.1 or solar photovoltaic systems where only portions of the systems on the building contain rapid shutdown, shall provide a detailed plan view diagram of the roof showing each different photovoltaic system and a dotted line around areas that remain energized after the rapid shutdown switch is operated.

1204.5.3 Rapid shutdown switch. A rapid shutdown switch shall have a label located not greater than 3 feet (914 mm) from the switch that states the following:

RAPID SHUTDOWN SWITCH
FOR SOLAR PV SYSTEM

SECTION 1205 STATIONARY FUEL CELL POWER SYSTEMS

1205.1 General. Stationary fuel cell power systems in new and existing occupancies shall comply with this section.

1205.2 Permits. Permits shall be obtained for stationary fuel cell power systems as set forth in Section 105.7.10.

1205.3 Equipment. Stationary fuel cell power systems shall comply with the following:

1. Prepackaged fuel cell power systems shall be listed and labeled in accordance with CSA FC 1.
2. The modules and components in a pre-engineered fuel cell power system shall be listed and labeled in accordance with CSA FC 1 and interconnected to complete the assembly of the system at the job site in accordance with the manufacturer's instructions and the module and component listings.
3. Field-fabricated fuel cell power systems shall be approved based on a review of the technical report provided in accordance with Section 104.7.2. The report shall be prepared by and bear the stamp of a registered design professional and shall include:
 - 3.1. A fire risk evaluation.
 - 3.2. An evaluation demonstrating that modules and components in the fuel cell power system comply with applicable requirements in CSA FC 1.
 - 3.3. Documentation of the fuel cell power system's compliance with applicable NFPA 2 and NFPA 853 construction requirements.

1205.4 Installation. Stationary fuel cell power systems shall be installed and maintained in accordance with NFPA 70 and NFPA 853, the manufacturer's installation instructions, and the listing. Stationary fuel cell power systems fueled by hydrogen shall be installed and maintained in accordance with NFPA 2 and NFPA 70, the manufacturer's installation instructions and the listing.

1205.5 Residential use. Stationary fuel cell power systems shall not be installed in Single- and Two-family dwellings, Group R-3 and R-4 buildings, or dwelling units associated with Group R-2 buildings unless they are specifically listed for residential use.

1205.6 Indoor installations. Stationary fuel cell power systems installed in indoor locations shall comply with Sections 1205.6 through 1205.6.2. For purposes of this section, an indoor location includes a roof and 50 percent or greater enclosing walls.

1205.6.1 Listed. Stationary fuel cell power systems installed indoors shall be specifically listed and labeled for indoor use.

1205.6.2 Separation. Rooms containing stationary fuel cell power systems shall be separated from the following occupancies by fire barriers or horizontal assemblies, or both, constructed in accordance with the International Building Code.

1. Group B, F, M, S and U occupancies by 1-hour fire resistance rated construction.
2. Group A, E, I and R occupancies by 2-hour fire resistance rated construction.

Exception: Stationary fuel cell power systems with an aggregate rating less than 50 kW shall not be required to be separated from other occupancies provided that the systems comply with Section 9.3 of NFPA 853.

1205.7 Vehicle impact protection. Where stationary fuel cell power systems are subject to impact by a motor vehicle, vehicle impact protection shall be provided in accordance with Section 312.

1205.8 Outdoor installation. Stationary fuel cell power systems located outdoors shall be separated by not less than 5 feet (1524 mm) from the following:

1. Lot lines.
2. Public ways.
3. Buildings.
4. Stored combustible materials.
5. Hazardous materials.
6. High-piled stock.
7. Any portion of a designated means of egress system.
8. Other exposure hazards.

1205.9 Fuel supply. The design, location and installation of the fuel supply for stationary fuel cell power systems shall comply with Chapter 53, Chapter 58 and the International Fuel Gas Code, based on the fuel being supplied to the system.

1205.10 Manual shutoff. Access to a manual shutoff valve shall be provided for the fuel piping within 6 feet (1829 mm) of any fuel storage tank serving the fuel cell and within 6 feet (1829 mm) of the power system. If the fuel tank and the stationary fuel cell power system are less than 12 feet (3658 mm) apart, a single shutoff valve shall be permitted. If the stationary fuel cell power system is located indoors, the shutoff valve shall be located outside of the room in which the system is installed, unless otherwise approved by the fire marshal.

1205.11 Ventilation and exhaust. Ventilation and exhaust for stationary fuel cell power systems shall be provided in accordance with NFPA 853.

1205.12 Fire suppression. Fire suppression for stationary fuel cell power system installations shall be provided in accordance with NFPA 853.

1205.13 Gas detection systems. Stationary fuel cell power systems shall be provided with a gas detection system. Detection shall be provided in approved locations in the fuel cell power system enclosure, the exhaust system or the room that encloses the fuel cell power system. The system shall be designed to activate at a flammable gas concentration of not more than 25 percent of the lower flammable limit (LFL).

1205.13.1 System activation. The activation of the gas detection system shall automatically:

1. Close valves between the gas supply and the fuel cell power system.
2. Shut down the fuel cell power system.
3. Initiate local audible and visible alarms in approved locations.

SECTION 1206 ELECTRICAL ENERGY STORAGE SYSTEMS

1206.1 Scope. The provisions in this section are applicable to energy storage systems designed to provide electrical power to a building, facility or electric utility. These systems are used to provide standby or emergency power, an uninterruptable power supply, load shedding, load sharing or similar capabilities. Energy storage systems in Single- and Two-family dwellings, Group R-3 and R-4 occupancies shall be in accordance with Sections 1206.2.1 and 1206.4. Approved signage is required for all installations.

1206.2 Stationary storage battery systems. Stationary storage battery systems having capacities exceeding the values shown in Table 1206.2 shall comply with Section 1206.2.1 through 1206.2.13.6, as applicable. Approved signage is

required for all installations.

TABLE 1206.2
BATTERY STORAGE SYSTEM THRESHOLD QUANTITIES

BATTERY TECHNOLOGY	CAPACITY ^a (kWh)
Flow batteries ^b	20
Lead acid, all types	70
Lithium, all types	20
Nickel cadmium (Ni-Cd)	70
Sodium, all types	20 ^c
Other battery technologies	10

For SI: 1 kilowatt hour = 3.6 megajoules

a. For batteries rated in amp-hours, kWh shall be equal rated value times amp-hour rating divided by 1,000.

b. Shall include vanadium, zinc-bromine, polysulfide-bromide, and other flowing electrolyte-type technologies.

c. 70 kWh for sodium-ion technologies.

1206.2.1 Permits. Permits shall be obtained for the installation and operation of stationary storage battery systems in accordance with Section 105.7.2.

1206.2.2 Construction documents. The following information shall be provided with the permit application:

1. Location and layout diagram of the room in which the stationary storage battery system is to be installed.
2. Details on hourly fire-resistance-rated assemblies provided.
3. Quantities and types of storage batteries and battery systems.
4. Manufacturer's specifications, ratings and listings of storage batteries and battery systems.
5. Details on energy management systems.
6. Location and content of signage.
7. Details on fire-extinguishing, smoke detection and ventilation systems.
8. Rack storage arrangement, including seismic support criteria.

1206.2.3 Hazard mitigation analysis. A failure modes and effects analysis (FMEA) or other approved hazard mitigation analysis shall be provided in accordance with Section 104.7.2 under any of the following conditions:

1. Battery technologies not specifically identified in Table 1206.2 are provided.
2. More than one stationary storage battery technology is provided in a room or indoor area where there is a potential for adverse interaction between technologies.
3. Where allowed as a basis for increasing maximum allowable quantities in accordance with Section 1206.2.9.
4. Where required by the fire marshal.

1206.2.3.1 Fault condition. The hazard mitigation analysis shall evaluate the consequences of the following failure modes, and others deemed necessary by the fire marshal. Only single-failure modes shall be considered.

1. Thermal runaway condition in a single-battery storage rack, module or array.

2. Failure of any energy management system.
3. Failure of any required ventilation system.
4. Voltage surges on the primary electric supply.
5. Short circuits on the load side of the stationary battery storage system.
6. Failure of the smoke detection, fire-extinguishing or gas detection system.
7. Spill neutralization not being provided or failure of the secondary containment system.
8. Failure of temperature control.

1206.2.3.2 Analysis approval. The fire marshal is authorized to approve the hazardous mitigation analysis provided that the hazard mitigation analysis demonstrates all of the following:

1. Fires or explosions will be contained within unoccupied battery storage rooms for the minimum duration of the fire-resistance-rated walls identified in Table 509.1 of the International Building Code.
2. Fires and explosions in battery cabinets in occupied work centers will be detected in time to allow occupants within the room to evacuate safely.
3. Toxic and highly toxic gases released during fires and other fault conditions shall not reach concentrations in excess of Immediately Dangerous to Life or Health (IDLH) levels in the building or adjacent means of egress routes during the time deemed necessary to evacuate from that area.
4. Flammable gases released from batteries during charging, discharging and normal operation shall not exceed 10 percent of their lower flammability limit (LFL).
5. Flammable gases released from batteries during fire, overcharging and other abnormal conditions shall not create an explosion hazard that will injure occupants or emergency responders.

1206.2.3.3 Additional protection measures. Construction, equipment and systems that are required for the stationary storage battery system to comply with the hazardous mitigation analysis, including but not limited to those specifically described in Section 1206.2, shall be installed, maintained and tested in accordance with nationally recognized standards and specified design parameters.

1206.2.3.4 Large-scale fire testing. Where required in Section 1206, large-scale fire testing shall be conducted on a representative stationary storage battery system, in accordance with UL 9540A. The testing shall be conducted or witnessed and reported by an approved testing laboratory. The test report shall be provided to the fire marshal for review and approval in accordance with Section 104.7.2.

1206.2.3.5 Fire remediation. Where a fire or other event has damaged a stationary storage battery system and ignition, or re-ignition of the stationary storage battery system is possible, the fire marshal may require the system owner, agent, or lessee to take actions, at their expense, to mitigate the hazard or remove the damaged equipment from the premise, to a safe location.

1206.2.3.6 Forensic analysis. The fire marshal may also require a forensic analysis of the cause of failure by an independent laboratory approved by the fire marshal in accordance with Section 104.10.2.

1206.2.4 Seismic and structural design. Stationary storage battery systems shall comply with the seismic design requirements in Chapter 16 of the International Building Code and shall not exceed the floor-loading limitation of the building.

1206.2.5 Vehicle impact protection. Where stationary storage battery systems are subject to impact by a motor vehicle, including forklifts, vehicle impact protection shall be provided in accordance with Section 312.

1206.2.6 Combustible storage. Combustible materials not related to the stationary storage battery system shall not be stored in battery rooms, cabinets or enclosures. Combustible materials in occupied work centers covered by Section 1206.2.8.5 shall not be stored less than 3 feet (915 mm) from battery cabinets.

1206.2.7 Testing, maintenance and repair. Storage batteries and associated equipment and systems shall be tested and maintained in accordance with the manufacturer's instructions. Any storage batteries or system components used to replace existing units shall be compatible with the battery charger, energy management systems, other storage batteries and other safety systems. Introducing other types of storage batteries into the stationary storage battery system or other types of electrolytes into flow battery systems shall be treated as a new installation and require approval by the fire marshal before the replacements are introduced into service.

1206.2.8 Location and construction. Rooms and areas containing stationary storage battery systems shall be designed, located and constructed in accordance with Sections 1206.2.8.1 through 1206.2.8.7.4.

1206.2.8.1 Location. Stationary storage battery systems shall not be in the following areas:

1. Where the floor is located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access,
2. Where the floor level is located below the lowest level of exit discharge.

Exceptions:

1. Lead acid and nickel cadmium stationary storage battery systems less than 50 VAC and 60 VDC installed in facilities under the exclusive control of communications utilities in accordance with NFPA 76.
2. Where approved, installations shall be permitted in underground vaults complying with NFPA 70, Article 450, Part III.
3. Where approved by the fire marshal, installations shall be permitted on higher and lower floors.
4. Installations on noncombustible rooftops of buildings exceeding 75 feet (22 860 mm) in height that do not obstruct fire department rooftop operations, where approved by the fire marshal.

1206.2.8.2 Separation. Rooms containing stationary storage battery systems shall be separated from other areas of the building in accordance with Section 509.1 of the International Building Code. Battery systems shall be allowed to be in the same room with the equipment they support.

1206.2.8.3 Stationary battery arrays. Storage batteries, prepackaged stationary storage battery systems and pre-engineered stationary storage battery systems shall be segregated into stationary battery arrays not exceeding 50 kWh (180 megajoules) each. Each stationary battery array shall be spaced not less than 3 feet (914 mm) from other stationary battery arrays and from walls in the storage room or area. The storage arrangements shall comply with Chapter 10.

Exceptions:

1. Lead acid and nickel cadmium storage battery arrays.
2. Listed pre-engineered stationary storage battery systems and prepackaged stationary storage battery systems shall not exceed 250 kWh (900 megajoules) each, *where approved by the fire marshal.
3. The fire marshal is authorized to approve listed, pre-engineered and prepackaged battery arrays with larger capacities or smaller battery array spacing if large-scale fire and fault condition testing conducted or witnessed and reported by an approved testing laboratory is provided showing that a fire involving one array will not propagate to an adjacent array, and be contained within the room for a duration equal to the fire-resistance rating of the room separation specified in Table 509 of the International Building Code.

1206.2.8.4 Separate rooms. Where stationary batteries are installed in a separate equipment room that can be accessed only by authorized personnel, they shall be permitted to be installed on an open rack for ease of maintenance.

1206.2.8.5 Occupied work centers. Where stationary storage batteries are in an occupied work center, they shall be housed in a noncombustible cabinet or other enclosure to prevent access by unauthorized personnel.

1206.2.8.5.1 Cabinets. Where stationary batteries are contained in cabinets in occupied work centers, the cabinet enclosures shall be located within 10 feet (3048 mm) of the equipment that they support.

1206.2.8.6 Signage. Approved signs shall be provided on or adjacent to all entry for battery storage rooms or areas and on enclosures of battery storage cabinets and walk-in units located outdoors, on rooftops or in open parking garages. Signs designed to meet both the requirements of this section and NFPA 70 shall be permitted. The signage shall include the following or equivalent:

1. "Energy Storage System", "Battery Storage System", "Capacitor Energy Storage System", or the equivalent.
2. The identification of the electrochemical battery energy storage system technology present.
"Energized Electrical Circuits"
3. If water reactive electrochemical battery energy storage system are present, the signage shall include
"APPLY NO WATER"
4. Current contact information, including phone number, for personnel authorized to service the equipment and fire mitigation personnel.

Exception: Existing stationary storage battery systems shall be permitted to include the signage required at the time it was installed.

1206.2.8.6.1 Electrical disconnects. Where the stationary storage battery system disconnecting means is not within sight of the main service disconnecting means, placards or directories shall be installed at the location of the main service disconnecting means indicating the location of stationary storage battery system disconnecting means in accordance with NFPA 70.

1206.2.8.6.2 Cabinet signage. Battery storage cabinets provided in occupied work centers in accordance with Section 1206.2.8.5 shall have exterior labels that identify the manufacturer

and model number of the system and electrical rating (voltage and current) of the contained battery system. There shall be signs within the cabinet that indicate the relevant electrical and chemical hazards, as required by Section 1206.2.12.

1206.2.8.7 Outdoor installations. Stationary storage battery systems located outdoors shall comply with Sections 1206.2.8.7 through 1206.2.8.7.4, in addition to all applicable requirements of Section 1206.2. Installations in outdoor enclosures or containers that can be occupied for servicing, testing, maintenance and other functions shall be treated as battery storage rooms.

Exception: Stationary battery arrays in noncombustible containers shall not be required to be spaced 3 feet (914 mm) from the container walls.

1206.2.8.7.1 Separation. Stationary storage battery systems located outdoors shall be separated by not less than 10 feet (3048 mm) from the following:

1. Lot lines.
2. Public ways.
3. Buildings.
4. Stored combustible materials.
5. Hazardous materials.
6. High-piled stock.
7. Other exposure hazards.

Exception: The fire marshal is authorized to approve smaller separation distances if largescale fire and fault condition testing conducted or witnessed and reported by an approved testing laboratory is provided showing that a fire involving the system will not adversely impact occupant egress from adjacent buildings, or adversely impact adjacent stored materials or structures.

1206.2.8.7.2 Means of egress. Stationary storage battery systems located outdoors shall be separated from any means of egress as required by the fire marshal to ensure safe egress under fire conditions, but not less than 10 feet (3048 mm).

Exception: The fire marshal is authorized to approve lesser separation distances if large-scale fire and fault condition testing conducted or witnessed and reported by an approved testing laboratory is provided showing that a fire involving the system will not adversely impact occupant egress.

1206.2.8.7.3 Security of outdoor areas. Outdoor areas in which stationary storage battery systems are located shall be secured against unauthorized entry and safeguarded in an approved manner.

1206.2.8.7.4 Walk-in units. Where a stationary storage battery system includes an outer enclosure, the unit shall only be entered for inspection, maintenance and repair of batteries and electronics, and shall not be occupied for other purposes.

1206.2.9 Maximum allowable quantities. Fire areas within buildings containing stationary storage battery

systems exceeding the maximum allowable quantities in Table 1206.2.9 shall comply with all applicable Group H occupancy requirements in this code and the International Building Code.

Exception: Where approved by the fire marshal, areas containing stationary storage batteries that exceed the amounts in Table 1206.2.9 shall be treated as incidental use areas and not Group H occupancies based on a hazardous mitigation analysis in accordance with Section 1206.2.3 and large-scale fire and fault condition testing conducted or witnessed and reported by an approved testing laboratory.

1206.2.9.1 Mixed battery systems. Where areas within buildings contain different types of storage battery technologies, the total aggregate quantities of batteries shall be determined based on the sum of percentages of each battery type quantity divided by the maximum allowable quantity of each battery type. If the sum of the percentages exceeds 100 percent, the area shall be treated as a Group H occupancy in accordance with Table 1206.2.9.

TABLE 1206.2.9
MAXIMUM ALLOWABLE BATTERY QUANTITIES

BATTERY TECHNOLOGY	MAXIMUM ALLOWABLE QUANTITIES	GROUP H OCCUPANCY
Flow batteries ^b	600 kWh	Group H-2
Lead-acid, all types	Unlimited	Not-applicable
Lithium, all types	600 kWh	Group H-2
Nickel-cadmium (Ni-Cd)	Unlimited	Not-applicable
Sodium, all types	600 kWh	Group H-2
Other battery technologies	200 kWh	Group H-2 ^c

For SI: 1 kilowatt hour = 3.6 megajoules

a. For batteries rated in amp-hours, kWh shall be equal rated value times amp-hour rating divided by 1,000.

b. Shall include vanadium, zinc-bromine, polysulfide-bromide, and other flowing electrolyte-type technologies.

c. Shall be a Group H-4 occupancy if the fire marshal determines that a fire or thermal runaway involving the battery technology does not represent a significant fire hazard.

1206.2.10 Storage batteries and equipment. The design and installation of storage batteries and related equipment shall comply with Sections 1206.2.10.1 through 1206.2.10.8.

1206.2.10.1 Listings. Storage batteries and battery storage systems shall comply with the following:

1. Storage batteries shall be listed in accordance with UL 1973.
2. Prepackaged and pre-engineered stationary storage battery systems shall be listed in accordance with UL 9540.

Exception: Lead-acid batteries are not required to be listed.

1206.2.10.2 Prepackaged and pre-engineered systems. Prepackaged and pre-engineered stationary storage battery systems shall be installed in accordance with their listing and the manufacturer's instructions.

1206.2.10.3 Energy management system. An approved energy management system shall be provided for battery technologies other than lead-acid and nickel cadmium for monitoring and balancing cell voltages, currents and temperatures within the manufacturer's specifications. The system shall transmit an alarm signal to an approved location and to an approved annunciator panel if potentially hazardous temperatures or other conditions such as short circuits, over voltage or under voltage are detected.

1206.2.10.3.1 Annunciator panel. The approved annunciator panel shall visibly indicate any hazardous temperature or other conditions. The location of the annunciator panel shall be

approved by the fire marshal.

1206.2.10.4 Battery chargers. Battery chargers shall be compatible with the battery chemistry and the manufacturer's electrical ratings and charging specifications. Battery chargers shall be listed and labeled in accordance with UL 1564 or provided as part of a listed pre-engineered or prepackaged stationary storage battery system.

1206.2.10.5 Inverters. Inverters shall be listed and labeled in accordance with UL 1741. Only inverters listed and labeled for utility interactive system use and identified as interactive shall be allowed to operate in parallel with the electric utility power system to supply power to common loads.

1206.2.10.6 Safety caps. Vented batteries shall be provided with flame-arresting safety caps.

1206.2.10.7 Thermal runaway. Where required by Section 1206.2.12, storage batteries shall be provided with a listed device or other approved method to prevent, detect and control thermal runaway.

1206.2.10.8 Toxic and highly toxic gas. Stationary storage battery systems that have the potential to release toxic and highly toxic gas during charging, discharging and normal use conditions shall comply with Chapter 60.

1206.2.11 Fire-extinguishing and detection systems. Fire-extinguishing and detection systems shall be provided in accordance with Sections 1206.2.11.1 through 1206.2.11.7.

1206.2.11.1 Fire-extinguishing systems. Rooms and areas within buildings and walk-in units containing electrochemical battery energy storage systems shall be equipped with an automatic sprinkler system installed in accordance with Section 903.3.1.1 with a minimum density of 0.6 gpm/ft.2 based on the fire area or 2,500 square feet (232 m2) design area, whichever is smaller or a sprinkler hazard classification based on large-scale fire testing . Commodity classifications for specific technologies of storage batteries shall be in accordance with Chapter 5 of NFPA 13. If the storage battery types are not addressed in Chapter 5 of NFPA 13, the fire marshal is authorized to approve the fire-extinguishing system based on full scale fire and fault condition testing conducted or witnessed and reported by an approved laboratory.

Exception: Spaces or areas containing stationary storage battery systems used exclusively for telecommunications equipment in accordance with Section 903.2.

1206.2.11.1.1 Alternative fire-extinguishing systems. Battery systems that utilize water-reactive materials shall be protected by an approved alternative automatic fire extinguishing system in accordance with Section 904. The system shall be listed for protecting the type, arrangement and quantities of storage batteries in the room. The fire marshal shall be permitted to approve the alternative fire extinguishing system based on full-scale fire and fault condition testing conducted or witnessed and reported by an approved laboratory.

1206.2.11.2 Smoke detection system. An approved automatic smoke detection system shall be installed in rooms containing stationary storage battery systems in accordance with Section 907.2.

1206.2.11.3 Ventilation. Where required by Section 1206.2.3 or 1206.2.12, ventilation of rooms containing stationary storage battery systems shall be provided in accordance with the International Mechanical Code and one of the following:

1. The ventilation system shall be designed to limit the maximum concentration of flammable gas to 10 percent of the lower flammability limit, or for hydrogen, 1.0 percent of the total volume of the room.

2. Continuous ventilation shall be provided at a rate of not less than 1 cubic foot per minute (cfm) per square foot [$0.00508 \text{ m}^3/(\text{s} \cdot \text{m}^2)$] of floor area, but not less than 150 cfm (4 m³/min).

The exhaust system shall be designed to provide air movement across all parts of the floor for gases having a vapor density greater than air and across all parts of the vault ceiling for gases having a vapor density less than air.

1206.2.11.3.1 Cabinet ventilation. Where cabinets located in occupied spaces contain storage batteries that are required by Section 1206.2.3 or 1206.2.12 to be provided with ventilation, the cabinet shall be provided with ventilation in accordance with Section 1206.2.11.3.

1206.2.11.3.2 Supervision. Required mechanical ventilation systems for rooms and cabinets containing storage batteries shall be supervised by an approved central station, proprietary or remote station service or shall initiate an audible and visual signal at an approved constantly attended on-site location.

1206.2.11.3.3 Standby power. Mechanical exhaust ventilation shall be provided with not less than 6 hours of standby power in accordance with International Building Code.

Separation shall be in accordance with NFPA 70.

Where the building, or a portion of the building, served by the mechanical exhaust ventilation is intended to remain operational / occupied during a utility power outage, through the use of an electrical standby power system, whether required or optional; the mechanical exhaust ventilation shall be connected to both the normal electrical service and emergency or standby power system for equivalent time periods.

1206.2.11.3.4 Mechanical exhaust ventilation controls. Clearly identified separate switches shall be provided both to activate the mechanical exhaust ventilation system and to shutoff the ventilation system.

1206.2.11.4 Gas detection system. Where required by Section 1206.2.3 or 1206.2.12 rooms containing stationary storage battery systems shall be protected by a gas detection system complying with Section 916. The gas detection system shall be designed to activate where the level of flammable gas exceeds 10 percent of the lower flammable limit (LFL), or where the level of toxic or highly toxic gas exceeds one half of the IDLH.

1206.2.11.4.1 System activation. Activation of the gas detection system shall result in all the following:

1. Initiation of distinct audible and visible alarms in the battery storage room.
2. Transmission of an alarm to an approved location.
3. De-energizing of the battery charger.
4. Activation of the mechanical ventilation system, where the system is interlocked with the gas detection system.

Exception: Lead-acid and nickel-cadmium stationary storage battery systems shall not be required to comply with Items 1, 2 and 3.

1206.2.11.5 Spill control and neutralization. Where required by Section 1206.2.12, approved methods

and materials shall be provided for the control and neutralization of spills of electrolyte or other hazardous materials in areas containing stationary storage batteries as follows:

1. For batteries with free-flowing electrolyte, the method and materials shall be capable of neutralizing a spill of the total capacity from the largest cell or block to a pH between 5.0 and 9.0.
2. For batteries with immobilized electrolyte, the method and material shall be capable of neutralizing a spill of 3.0 percent of the capacity of the largest cell or block in the room to a pH between 5.0 and 9.0.

1206.2.11.5.1 Spill control barrier. Each rack of batteries, or group of racks shall be provided with a liquid-tight 4-inch (102 mm) spill control barrier that extends at least 1-inch (25 mm) beyond the battery rack in all directions.

1206.2.11.6 Explosion Control. Where required by Section 1206.2.12, explosion control, complying with Section 911, NFPA 68 and NFPA 69, shall be provided for rooms, areas or walk-in units containing electrochemical battery energy storage system technologies.

Exceptions:

1. Where approved, explosion control is permitted to be waived by the fire marshal based on large-scale fire testing demonstrating that flammable gases are not liberated from electrochemical battery energy storage system cells or modules.
2. Where approved, explosion control is permitted to be waived by the fire marshal based on documentation provided in accordance with Section 104.7 that demonstrating that the electrochemical battery energy storage system technology to be used does not have the potential to release flammable gas concentrations in excess of 10 percent of the lower flammable limit (LFL) anywhere in the room, area, walk-in unit or structure under thermal runaway or other fault conditions.

1206.2.11.7 Emergency energy release. An approved means must be provided to safely release stored energy from the batteries in an emergency.

1206.2.12 Specific battery-type requirements. This section includes requirements applicable to specific types of storage batteries. Stationary storage battery systems with more than one type of storage battery shall comply with requirements applicable to each battery type.

1206.2.12.1 Lead-acid storage batteries. Stationary storage battery systems utilizing lead-acid storage batteries shall comply with the following:

1. Ventilation shall be provided in accordance with Section 1206.2.11.3.
2. Spill control and neutralization shall be in accordance with Section 1206.2.11.5.
3. Explosion control shall be provided in accordance with Section 1206.11.6.
4. Safety caps shall be provided in accordance with Section 1206.2.10.6.
5. Thermal runaway protection shall be provided for valve-regulated lead-acid (VRLA) storage batteries in accordance with Section 1206.2.10.7.
6. The signage in Section 1203.2.8.6 shall indicate the room contains lead-acid batteries.

1206.2.12.2 Nickel-cadmium (Ni-Cd) storage batteries. Stationary storage battery systems utilizing nickel cadmium (Ni-Cd) storage batteries shall comply with the following:

1. Ventilation shall be provided in accordance with Section 1206.2.11.3.
2. Spill control and neutralization shall be in accordance with Section 1206.2.11.5.
3. Explosion control shall be provided in accordance with Section 1206.11.6.
4. Safety caps shall be provided in accordance with Section 1206.2.10.6.
5. Thermal runaway protection shall be provided for valve-regulated lead-acid (VRLA) storage batteries in accordance with Section 1206.2.10.7.
6. The signage in Section 1203.2.8.6 shall indicate the room contains nickel-cadmium batteries.

1206.2.12.3 Lithium-ion storage batteries. Stationary storage battery systems utilizing lithium-ion storage batteries shall comply with the following:

1. Ventilation shall be provided in accordance with Section 1206.2.11.3.
2. Explosion control shall be provided in accordance with Section 1206.11.6.
3. Thermal runaway protection shall be provided in accordance with Section 1206.2.10.7.
4. The signage in Section 1206.2.8.6 shall indicate the type of lithium batteries contained in the room.

1206.2.12.4 Sodium-beta storage batteries. Stationary storage battery systems utilizing sodium-beta storage batteries shall comply with the following:

1. Ventilation shall be provided in accordance with Section 1206.2.11.3.
2. The signage in Section 1206.2.8.6 shall indicate the type of sodium batteries in the room and include the instructions, "APPLY NO WATER."

1206.2.12.5 Flow storage batteries. Stationary storage battery systems utilizing flow storage batteries shall comply with the following:

1. Ventilation shall be provided in accordance with Section 1206.2.11.3.
2. Spill control and neutralization shall be in accordance with Section 1206.2.11.5.
3. Explosion control shall be provided in accordance with Section 1206.11.6.
4. Safety caps shall be provided in accordance with Section 1206.2.10.6.
5. Thermal runaway protection shall be provided in accordance with Section 1206.2.10.7.
3. The signage required in Section 1206.2.8.6 shall indicate the type of flow batteries in the room.

1206.2.12.6 Other battery technologies. Stationary storage battery systems utilizing battery technologies other than those described in Sections 1206.2.12.1 through 1206.2.12.5 shall comply with the following:

1. Gas detection systems complying with Section 916 shall be provided in accordance with Section 1206.2.11.4 where the batteries have the potential to produce toxic or highly toxic gas in the storage room or cabinet in excess of the permissible exposure limits (PEL) during charging, discharging and normal system operation.

2. Mechanical ventilation shall be provided in accordance with Section 1206.2.11.3.
3. Spill control and neutralization shall be in accordance with Section 1206.2.11.5.
4. In addition to the signage required in Section 1206.2.8.6, the marking shall identify the type of batteries present, describe the potential hazards associated with the battery type, and indicate that the room contains energized electrical circuits.
5. Explosion control shall be provided in accordance with Section 1206.11.6
6. Safety caps shall be provided in accordance with Section 1206.2.10.6.
7. Thermal runaway protection shall be provided in accordance with Section 1206.2.10.7.

1206.2.13 Special Installations. Rooftop and open parking garage battery energy storage system installations shall comply with Sections 1206.2.13.1 through 1206.2.13.4. Signage shall comply with Section 1206.2.8.6.

1206.2.13.1 Clearance to exposures. Battery storage systems located on rooftops and in open parking garages shall be separated by not less than 10 feet (3048 mm) from the following exposures:

1. Buildings, except the building on which rooftop battery energy storage system is mounted
2. Any portion of the building on which a rooftop system is mounted that is elevated above the rooftop on which the system is installed
3. Lot lines
4. Public ways
5. Stored combustible materials
6. Locations where motor vehicles can be parked
7. Hazardous materials
8. Other exposure hazards

Exceptions:

1. Clearances are permitted to be reduced to 3 feet (914 mm) where a 1-hour freestanding fire barrier, suitable for exterior use, and extending 5 feet (1524 mm) above and 5 feet (1524 mm) beyond the physical boundary of the battery energy storage system, installation is provided to protect the exposure.
2. Clearances are permitted to be reduced to 3 feet (914 mm) where a weatherproof enclosure constructed of noncombustible materials is provided over the battery energy storage system and it has been demonstrated that a fire within the enclosure will not ignite combustible materials outside the enclosure.

1206.2.13.2 Fire suppression systems. Battery storage systems located in walk-in units on rooftops or in walk-in units in open parking garages shall be provided with automatic fire suppression systems within the battery energy storage system enclosure in accordance with Section 1206.2.11.1. Areas containing battery energy storage systems other than walk-in units in open parking structures on levels not open above to the sky shall be provided with an automatic fire suppression system complying with Section 1206.2.11.1.

1206.2.13.3 Rooftop installations. Battery storage systems and associated equipment that are located on rooftops and not enclosed by building construction shall comply with the following:

1. Stairway access to the roof for emergency response and fire department personnel shall be provided either through a bulkhead from the interior of the building or a stairway on the exterior of the building.
2. Service walkways not less than 5 feet (1524 mm) in width shall be provided for service and emergency personnel from the point of access to the roof to the system.
3. Battery storage systems and associated equipment shall be located from the edge of the roof a distance equal to at least the height of the system, equipment, or component but not less than 5 feet (1524 mm).
4. The roofing materials under and within 5 feet (1524 mm) horizontally from a battery storage systems or associated equipment shall be noncombustible or shall have a Class A rating when tested in accordance with ASTM E108 or UL 790.
5. A Class I standpipe outlet shall be installed at an approved location on the roof level of the building or in the stairway bulkhead at the top level.
6. The battery storage systems shall be not less than 10 feet (3048 mm) from the fire service access point on the rooftop.

1206.2.13.4 Open parking garages. Battery storage systems and associated equipment that are in open parking garages shall comply with all of the following:

1. Battery storage systems shall not be located within 50 feet (15 240 mm) of air inlets for building HVAC systems.

Exception: This distance shall be permitted to be reduced to 25 feet (7620 mm) if the automatic fire alarm system monitoring the radiant-energy-sensing detectors de-energizes the ventilation system connected to the air intakes upon detection of fire.

2. Battery storage systems shall not be located within 25 feet (7620 mm) of exits leading from the attached building where located on a covered level of the parking structure not directly open to the sky above.
3. An approved fence with a locked gate or other approved barrier shall be provided to keep the general public not less than 5 feet (1024 mm) from the outer enclosure of the battery energy storage system.

1206.3 Capacitor energy storage systems. Capacitor energy storage systems having capacities exceeding 3 kWh (10.8 megajoules) shall comply with Sections 1206.3 through 1206.3.2.6.1.

Exception: Capacitors regulated by NFPA 70, Chapter 460, and capacitors included as a component part of other listed electrical equipment are not required to comply with this section.

1206.3.1 Permits. Permits shall be obtained for the installation of capacitor energy storage systems in accordance with Section 105.7.3.

1206.3.2 Location and construction. Rooms and areas containing capacitor energy storage systems shall be designed, located and constructed in accordance with Sections 1206.3.2 through 1206.3.2.5.

1206.3.2.1 Location. Capacitor energy storage systems shall not be located in areas where the floor is

located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access, or where the floor level is more than 30 feet (9144 mm) below the finished floor of the lowest level of exit discharge.

1206.3.2.2 Separation. Rooms containing capacitor energy storage systems shall be separated from the following occupancies by fire barriers or horizontal assemblies, or both, constructed in accordance with the International Building Code.

1. Group B, F, M, S and U occupancies by 1-hour fire-resistance-rated construction.
2. Group A, E, I and R occupancies by 2-hour fire resistance rated construction.

1206.3.2.3 Capacitor arrays. Capacitor energy storage systems shall be segregated into capacitor arrays not exceeding 50 kWh each. Each array shall be spaced not less than 3 feet (914 mm) from other arrays and from walls in the storage room or area. The storage arrangements shall comply with Chapter 10.

Exception: Capacitor energy storage systems in noncombustible containers located outdoors shall not be required to be spaced 3 feet (914 mm) from the container walls.

1206.3.2.4 Signage. Approved signs shall be provided on doors or in locations adjacent to the entrances to capacitor energy storage system rooms and shall include the following or equivalent verbiage and information:

1. "CAPACITOR ENERGY STORAGE ROOM."
2. "THIS ROOM CONTAINS ENERGIZED ELECTRICAL CIRCUITS."
3. An identification of the type of capacitors present and the potential hazards associated with the capacitor type.

1206.3.2.5 Electrical disconnects. Where the capacitor energy storage system disconnecting means is not within sight of the main service disconnecting means, placards or directories shall be installed at the location of the main service disconnecting means identifying the location of the capacitor energy storage system disconnecting means in accordance with NFPA 70.

1206.3.2.6 Outdoor installation. Capacitor energy systems located outdoors shall comply with Sections 1206.3.2.6 through 1206.3.2.6.4 in addition to all applicable requirements of Section 1206.3. Installations in outdoor enclosures or containers that can be occupied for servicing, testing, maintenance and other functions shall be treated as capacitor storage rooms.

Exception: Capacitor arrays in noncombustible containers shall not be required to be spaced 3 feet (914 mm) from the container walls.

1206.3.2.6.1 Separation. Capacitor energy systems located outdoors shall be not less than 5 feet (1524 mm) from the following:

1. Lot lines.
2. Public ways.
3. Buildings.
4. Stored combustible materials.

5. Hazardous materials.
6. High-piled stock.
7. Other exposure hazards.

Exception: The fire marshal is authorized to approve lesser separation distances if large-scale fire and fault condition testing conducted or witnessed and reported by an approved testing laboratory is provided showing that a fire involving the system will not adversely impact occupant egress from adjacent buildings, or adversely impact adjacent stored materials or structures.

1206.3.2.6.2 Means of egress. Capacitor energy storage systems located outdoors shall be separated from any means of egress as required by the fire marshal to ensure safe egress under fire conditions, but not less than 10 feet (3048 mm).

Exception: The fire marshal is authorized to approve lesser separation distances if large-scale fire and fault condition testing conducted or witnessed and reported by an approved testing laboratory is provided showing that a fire involving the system will not adversely impact occupant egress.

1206.3.2.6.3 Security of outdoor areas. Outdoor areas in which capacitor energy storage systems are located shall be secured against unauthorized entry and safeguarded in an approved manner.

1206.3.2.6.4 Walk-in units. Where a capacitor energy storage system includes an outer enclosure, the unit shall only be entered for inspection, maintenance and repair of capacitors and electronics, and shall not be occupied for other purposes.

1206.3.3 Maximum allowable quantities. Fire areas within buildings containing capacitor energy storage systems that exceed 600 kWh of energy capacity shall comply with all applicable Group H occupancy requirements in this code and the International Building Code.

1206.3.4 Capacitors and equipment. The design and installation of capacitor energy storage systems and related equipment shall comply with Sections 1206.3.4.1 through 1206.3.4.5.

1206.3.4.1 Listing. Capacitors and capacitor energy storage systems shall comply with the following:

1. Capacitors shall be listed in accordance with UL 1973.
2. Prepackaged and pre-engineered stationary capacitor energy storage systems shall be listed in accordance with UL 9540.

1206.3.4.2 Prepackaged and pre-engineered systems. In addition to other applicable requirements of this code, prepackaged and pre-engineered capacitor energy storage systems shall be installed in accordance with their listing and the manufacturer's instructions.

1206.3.4.3 Energy management system. An approved energy management system shall be provided for monitoring and balancing capacitor voltages, currents and temperatures within the manufacturer's specifications. The system shall transmit an alarm signal to an approved location if potentially hazardous temperatures or other conditions such as short circuits, over voltage or under voltage are detected.

1206.3.4.4 Capacitor chargers. Capacitor chargers shall be compatible with the capacitor manufacturer's electrical ratings and charging specifications. Capacitor chargers shall be listed and labeled in accordance with UL 1564 or provided as part of a listed pre-engineered or prepackaged capacitor energy storage system.

1206.3.4.5 Toxic and highly toxic gas. Capacitor energy storage systems that have the potential to release toxic and highly toxic materials during charging, discharging and normal use conditions shall comply with Chapter 60.

1206.3.5 Fire-extinguishing and detection systems. Fire-extinguishing and smoke detection systems shall be provided in capacitor energy storage system rooms in accordance with Sections 1206.3.5.1 through 1206.3.5.2.

1206.3.5.1 Fire-extinguishing systems. Rooms containing capacitor energy storage systems shall be equipped with an automatic sprinkler system installed in accordance with Section 903.3.1.1. Commodity classifications for specific capacitor technologies shall be in accordance with Chapter 5 of NFPA 13. If the capacitor types are not addressed in Chapter 5 of NFPA 13, the fire marshal is authorized to approve the automatic sprinkler system based on full-scale fire and fault condition testing conducted by an approved laboratory.

1206.3.5.1.1 Alternative fire-extinguishing systems. Capacitor energy storage systems that utilize water-reactive materials shall be protected by an approved alternative automatic fire-extinguishing system in accordance with Section 904. The system shall be listed for protecting the type, arrangement and quantities of capacitors in the room. The fire marshal shall be permitted to approve the system based on full-scale fire and fault condition testing conducted by an approved laboratory.

1206.3.5.2 Smoke detection system. An approved automatic smoke detection system shall be installed in rooms containing capacitor energy storage systems in accordance with Section 907.2.

1206.3.5.3 Ventilation. Where capacitors release flammable gases during normal operating conditions, ventilation of rooms containing capacitor energy storage systems shall be provided in accordance with the International Mechanical Code and one of the following:

1. The ventilation system shall be designed to limit the maximum concentration of flammable gas to 25 percent of the lower flammability limit.
2. Continuous ventilation shall be provided at a rate of not less than 1 cubic foot per minute (cfm) per square foot [$0.00508 \text{ m}^3/(\text{s} \cdot \text{m}^2)$] of floor area, but not less than 150 cfm (4 m^3/min).

The exhaust system shall be designed to provide air movement across all parts of the floor for gases having a vapor density greater than air and across all parts of the ceiling for gases having a vapor density less than air.

1206.3.5.3.1 Supervision. Required mechanical ventilation systems for rooms containing capacitor energy storage systems shall be supervised by an approved central station, proprietary or remote station service, or shall initiate an audible and visible signal at an approved, constantly attended on-site location.

1206.3.5.4 Spill control and neutralization. Where capacitors contain liquid electrolyte, approved methods and materials shall be provided for the control and neutralization of spills of electrolyte or other hazardous materials in areas containing capacitors as follows:

1. For capacitors with free-flowing electrolyte, the method and materials shall be capable of neutralizing a spill of the total capacity from the largest cell or block to a pH between 5.0 and 9.0.
2. For capacitors with immobilized electrolyte, the method and material shall be capable of neutralizing a spill of 3.0 percent of the capacity of the largest cell or block in the room to a pH between 5.0 and 9.0.

1206.3.6 Testing, maintenance and repair. Capacitors and associated equipment and systems shall be tested and maintained in accordance with the manufacturer's instructions. Any capacitors or system components used to replace existing units shall be compatible with the capacitor charger, energy management systems, other capacitors, and other safety systems. Introducing different capacitor technologies into the capacitor energy storage system shall be treated as a new installation and require approval by the fire marshal before the replacements are introduced into service.

1206.4 Energy storage system in Single- and Two-Family Dwellings, Group R-3, and R-4 occupancies. Energy storage systems in Single- and Two-Family Dwellings, Group R-3, and R-4 occupancies shall be installed and maintained in accordance with this section. The temporary use of an owner or occupant's electric-powered vehicle as an energy storage system shall be in accordance with this section.

Exception: Energy storage systems in Single- and Two-Family Dwellings, Group R-3, and R-4 occupancies with a capacity of 3 kWh or less.

1206.4.1 Equipment listings. Energy storage system shall be listed and labeled for residential use in accordance with UL 9540.

Exceptions:

1. Where approved, repurposed unlisted battery systems from electric vehicles may be installed outdoors or in detached dedicated cabinets located not less than 5 feet (1524 mm) from exterior walls, property lines and public ways.
2. Energy storage systems less than 1 kWh.

1206.4.2 Installation. Energy storage system shall be installed in accordance with the manufacturer's instructions and their listing.

1206.4.2.1 Spacing. Individual units shall be separated from each other by at least 3 feet (914 mm) of spacing unless smaller separation distances are documented and approved by the fire marshal to be adequate based on large-scale fire testing.

1206.4.3 Location. Energy storage systems shall only be installed in the following locations:

1. Detached garages and detached accessory structures.
2. Attached garages separated from the dwelling unit living space and sleeping units in accordance with Section 406.3.2 of the International Building Code and the International Residential Code.
3. Outdoors on exterior walls in accordance with 1206.4.3.1
4. Other locations with Fire Marshal approval.

1206.4.3.1 Exterior wall and outdoor installations. Energy storage systems shall be permitted to be installed outdoors on exterior walls of buildings or on the ground where all of the following conditions are met:

1. The maximum energy capacity of individual energy storage system units shall not exceed 20 kWh.
2. The energy storage system shall be installed in accordance with the manufacturer's instructions and their listing.
3. Individual energy storage system units shall be separated from each other by not less than 3 feet (914 mm).
4. The energy storage system shall be separated from doors, windows, operable openings into buildings, or HVAC inlets by at least 5 feet (1524 mm).

Exception: Where approved by the fire marshal, smaller separation distances in Items 4 and 5 may be permitted based on large scale fire testing

1206.4.4 Energy ratings. Individual energy storage systems units shall have a maximum rating of 20 kWh. The aggregate rating structure shall not exceed:

1. 80 kWh in attached or detached garages and detached accessory structures.
2. 80 kWh on exterior walls.
3. 80 kWh outdoors on the ground.

1206.4.5 Electrical installation. Energy storage system shall be installed in accordance with NFPA 70. Inverters shall be listed and labeled in accordance with UL 1741 or provided as part of the UL 9540 listing. Systems connected to the utility grid shall use inverters listed for utility interaction.

1206.4.6 Multiple-station smoke alarms. Listed multiple-station smoke alarms shall be installed and maintained within the dwelling unit in accordance with Section 907.2.10.

1206.4.7 Heat Detector. A heat detector listed and interconnected to the multiple-station smoke alarms required in Section 1206.4.6 shall be installed in attached garages.

1206.4.8 Fire detection. Rooms and areas within dwellings units, sleeping units and attached garages in which energy storage systems are installed shall be protected by smoke alarms in accordance with Section 907.2.10. A heat detector listed and interconnected to the smoke alarms shall be installed in locations within dwelling units, sleeping units and attached garages where smoke alarms cannot be installed based on their listing.

1206.4.9 Protection from impact. Stationary storage battery systems installed in a location subject to vehicle damage shall be protected by approved barriers.

1206.4.810 Existing Fuel Burning Appliances. All existing fuel burning appliances in garages shall be installed in accordance with Section 304.3 of the International Mechanical Code.

1206.4.9 Ventilation. When installed in attached garages, energy storage systems that include batteries that produce hydrogen or other flammable gases during charging shall be provided with ventilation in accordance with Section 1206.2.11.3.

1206.4.10 Toxic and highly toxic gas. Energy storage systems that have the potential to release toxic or highly toxic gas during charging, discharging and normal use conditions shall not be installed within Single- and Two-Family Dwellings, Group R-3 or R-4 occupancies.

Sections 2301.4 and 2301.4.1 are deleted.

Section 5601.2.3 is deleted in its entirety and replaced with the following:

5601.2.3 Permit restrictions. The storage of explosives and blasting agents is prohibited within the entire City, except for temporary storage for use in connection with approved blasting operations. However, this prohibition shall not apply to wholesale and retail stocks of small arms ammunition, explosive bolts, explosive rivets or cartridges for explosive- actuated power tools in quantities involving less than 500 pounds (226.8 kg) of explosive material.

Section 5704.2.9.6.1 is deleted in its entirety and replaced with the following:

5704.2.9.6.1 Locations where above-ground tanks are prohibited. Storage of Class I and II liquids in above-ground tanks outside of buildings is prohibited within the limits established by The Zoning Ordinance of the City of Avondale, Arizona.

Section 5704.2.13.1.4 is deleted in its entirety and replaced with the following

5704.2.13.1.4 Tanks abandoned in place. The abandonment of tanks in place is prohibited within the entire City.

Section 5706.2.4.4 is deleted in its entirety and replaced with the following:

5706.2.4.4 Locations where above-ground tanks are prohibited. Storage of Class I and II liquids in above-ground tanks outside of buildings is prohibited within the limits established by The Zoning Ordinance of the City of Avondale, Arizona.

Section 5706.5.4.6 is added to read as follows:

5706.5.4.6 Fueling of vehicles at motorsport venues. Dispensing of motor vehicle fuel from tank vehicles into the fuel tanks of motor vehicles located at an *approved* motorsport venue is allowed by special permit from the *fire marshal*, provided such dispensing operations are conducted in accordance with section 5706.2.8, section 5706.5.4.5 and the following:

1. A Fueling Safety Plan shall be required to coordinate fueling operations, equipment, personnel, training, personal protective equipment, ignition source control, fueling procedures and safety procedures in accordance with this code and the appropriate NFPA standards.
2. An Emergency Response Plan shall be required to coordinate spill procedures, fire procedures, evacuation procedures and emergency procedures in accordance with this code and the appropriate NFPA standards.
3. A Fire Protection Plan shall be required to coordinate the fire protection water supply, fire equipment, foam firefighting systems, personnel, training, personal protective equipment and fire protection procedures in accordance with this code and the appropriate NFPA standards.
4. A Spill Prevention, Control and Countermeasures Plan (SPCC) shall be required in accordance with Environmental Protection Agency (EPA) requirements.
5. The Fueling Safety Plan, Emergency Response Plan, Fire Protection Plan and Spill Prevention, Control and Countermeasures Plan shall be reviewed, sealed and signed by a qualified Arizona Registered Professional Engineer.

ORDINANCE NO. 2006-0121

AN ORDINANCE OF THE COUNCIL OF THE CITY OF AVONDALE, ARIZONA, DECLARING THE DOCUMENT ENTITLED “2018 INTERNATIONAL FIRE CODE” AS A PUBLIC RECORD; DECLARING THE DOCUMENT ENTITLED “JANUARY 19, 2021 AVONDALE AMENDMENTS TO THE 2018 INTERNATIONAL FIRE CODE” AS A PUBLIC RECORD; ADOPTING EACH BY REFERENCE AND AMENDING THE AVONDALE CITY CODE, CHAPTER 10 (FIRE PREVENTION AND PROTECTION), ARTICLE III (FIRE CODE), TO INCLUDE THE “2018 INTERNATIONAL FIRE CODE” AND THE “JANUARY 19, 2021 AVONDALE AMENDMENTS TO THE 2018 INTERNATIONAL FIRE CODE”; PROVIDING FOR SEVERABILITY; PROVIDING FOR PENALTIES; AND DECLARING AN EMERGENCY.

WHEREAS, the International Code Council produces and provides model codes and standards for use by municipalities in the design, build and compliance process of structures; and

WHEREAS, the International Code Council allows certain municipalities to adopt editions of the international fire codes with local amendments; and

WHEREAS, the City of Avondale has the need to modify certain provisions of the 2018 International Fire Code to accommodate local needs, which local amendments are compiled in the January 19, 2021 Avondale Amendments to the 2018 International Fire Code (the “Avondale Amendments”); and

WHEREAS, the City Council has determined that adoption of the 2018 International Fire Code and the Avondale Amendments is necessary to update the fire regulations, bring uniformity to the fire community and protect the public health, safety, and welfare of the City’s residents.

NOW THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF AVONDALE as follows:

SECTION 1. The recitals above are hereby incorporated as if fully set forth herein.

SECTION 2. That certain document known as the 2018 International Fire Code of which one paper copy and one electronic copy maintained in compliance with ARIZ. REV. STAT. § 44-7041 are on file in the office of the City Clerk and open for public inspection during normal business hours, is hereby declared to be a public record, and said copies are hereby ordered to remain on file with the City Clerk.

SECTION 3. That certain document known as the Avondale Amendments, of which one paper copy and one electronic copy maintained in compliance with ARIZ. REV. STAT. § 44-7041 are on file in the office of the City Clerk and open for public inspection during normal business hours, is hereby declared to be a public record, and said copies are hereby ordered to remain on file with the City Clerk.

SECTION 4. The 2018 International Fire Code is hereby referred to, adopted and made a part of hereof as if fully set out in this Ordinance.

SECTION 5. The Avondale Amendments are hereby referred to, adopted and made a part of hereof as if fully set out in this Ordinance.

SECTION 3. The Avondale City Code, Chapter 10 (Fire Prevention and Protection), Article III (Fire Code), Section 10-40 (Adopted) is hereby deleted in its entirety and replaced with the following:

Section 10-40 – Adopted

Those certain documents designated and marked as the 2018 International Fire Code and all appendices contained therein, and the January 19, 2021 Avondale Amendments to the 2018 International Fire Code, of which one paper copy and one electronic copy maintained in compliance with ARIZ. REV. STAT. § 44-7041 are on file in the office of the City Clerk of the City of Avondale, together are hereby adopted as the Fire Code for the City of Avondale by reference as if set forth herein in full. It is hereby declared unlawful to violate any of the provisions of the said Fire Code as adopted by the Council of the City of Avondale.

SECTION 4. Ordinance No. 1644-218 and all ordinances or parts of ordinances in conflict with the provisions of this Ordinance or any part of 2018 International Fire Code or the Avondale Amendments adopted herein are hereby repealed.

SECTION 5. If any section, subsection, sentence, clause, phrase or portion of this Ordinance or any part of the 2018 International Fire Code or the Avondale Amendments is for any reason to be held invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions thereof.

SECTION 6. Any person found in violation of any provision of the 2018 International Fire Code or the Avondale Amendments may be found guilty of a class one misdemeanor, punishable by a fine not to exceed \$2,500, imprisonment for a period not to exceed six months, or by both such fine and imprisonment or issued a civil citation of a \$250 base fine for the first violation, \$500 base fine for the second violation and \$1,000 base fine for a third violation in any twenty-four month period. Each day that a violation or failure to perform continues shall be a separate offense punishable as herein described. After having been found responsible for committing three or more civil infractions of the same code provision in any twenty-four month period, a person is a habitual offender and may be charged with a class one misdemeanor, punishable as described in the Avondale City Code.

SECTION 7. The immediate operation of this Ordinance is necessary to ensure public health and safety; therefore, an emergency is hereby declared to exist. This Ordinance shall be in full force and effect from and after its passage and approval by the City Council as required by law, and this Ordinance is hereby exempt from the referendum provisions of the constitution and laws of the State of Arizona.

SECTION 8. The Mayor, the City Manager, the City Clerk and the City Attorney are

hereby authorized and directed to take all steps necessary to carry out the purpose and intent of this Ordinance.

PASSED AND ADOPTED by the Council of the City of Avondale, Arizona, January 19, 2021.

Kenneth N. Weise, Mayor

ATTEST:

Marcella Carrillo, City Clerk

APPROVED AS TO FORM:

Nicholle Harris, City Attorney

CITY COUNCIL REPORT

SUBJECT: Pena Minor Land Division - 1st Street and Harrison Drive - Application PL-20-0252

MEETING DATE: 1/19/2021

TO: Mayor and Council

FROM: Kevin Murphy, Development & Engineering Services Director, (623) 333-4011

THROUGH: Tracy Stevens, Deputy City Manager, (623) 333-1014

REVIEWED: Charles A. Montoya, City Manager, (623) 333-1016

PURPOSE:

City Council will consider a request by Mr. Miguel Pena, of Dynamic Homez LLC, for approval of a Minor Land Division (MLD) to split an existing single lot into two (2) separate lots and dedicate public utility easements along Harrison Drive and 1st Street. The site is approximately 0.4 gross acres in size and located at the southwest corner of 1st Street and Harrison Drive. The Council will take the appropriate action.

BACKGROUND:

The 0.4 gross acre site (Exhibits A and B) is located at the southwest corner of 1st Street and Harrison Drive. The property was included as part of the City of Avondale's original incorporation on December 16, 1946.

The subject property is zoned R-3 (Multi-Family), and has an existing single-family residence located on the eastern half of the site. This property has a General Plan 2030 Land Use Map designation of Medium Density Residential.

The existing uses and zoning of the surrounding properties are as follows:

NORTH: Single-family residential development, zoned R-3

SOUTH: Single-family residential development, zoned R-3

EAST: Single-family residential development, zoned R-3

WEST: Single-family residential development, zoned R-3

SUMMARY OF REQUEST:

The applicant is requesting approval of a Minor Land Division (Exhibit C). The proposed MLD will create two (2) lots, one with an existing single-family home and the other lot for a future single-family home, and dedicate public utility easements along Harrison Drive and 1st Street:

- Lot A (8,231 s.f.) at the west

- Lot B (9,813 s.f.) at the east

Each new lot will be compliant with the R-3 Development Standards and will exceed the minimum net lot size of 6,000 square feet. The existing structure will meet required building setbacks.

PUBLIC INPUT:

Public notification is not required for Minor Land Division applications.

PLANNING COMMISSION ACTION:

The Planning Commission does not review Minor Land Division applications.

ANALYSIS:

- The proposed Minor Land Division has been reviewed by the City's contracted Registered Land Surveyor and the document has been confirmed as geometrically accurate and in conformance with Arizona Statutes governing the subdivision of real property.
- The proposed Minor Land Division complies with all applicable City documents, including the Avondale Subdivision Regulations, Zoning Ordinance, General Plan 2030, and the General Engineering Requirements Manual.

DISCUSSION:

1. The proposed Minor Land Division is in conformance with the City of Avondale Zoning Ordinance and Subdivision Regulations.
2. The condition of approval is reasonable to ensure conformance with the provisions as outlined in the Avondale Zoning Ordinance and all other applicable City codes, ordinances, and policies.

STRATEGIC PLAN:

INITIATIVE: Foster sustainable community development

- STRATEGIC GOAL: Encourage build-out in residential housing opportunities that support diverse housing options

BUDGET IMPACT:

No budget impacts.

RECOMMENDATION:

No public hearing is required. City Council will **APPROVE** Application PL-20-0252 Pena Minor Land Division, subject to the following condition of approval:

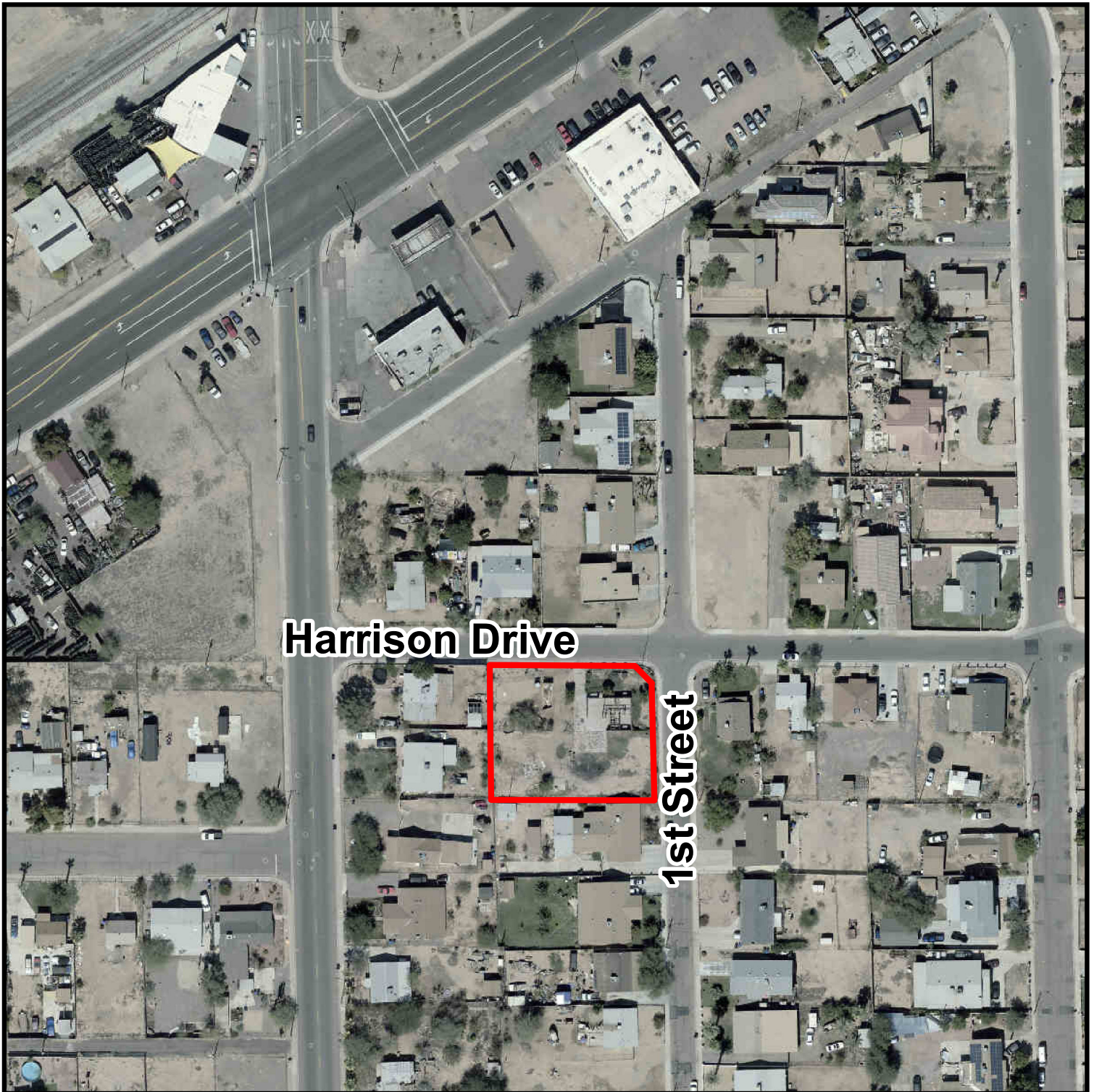
1. The recorded Minor Land Division shall be in conformance with the Pena Minor Land Division date stamped November 24, 2020.

PROPOSED MOTION:

I move that City Council **APPROVE** Application PL-20-0252 Pena Minor Land Division, subject to one (1) recommended condition of approval as listed in the staff report.

Exhibit A

Aerial Image



Aerial Image

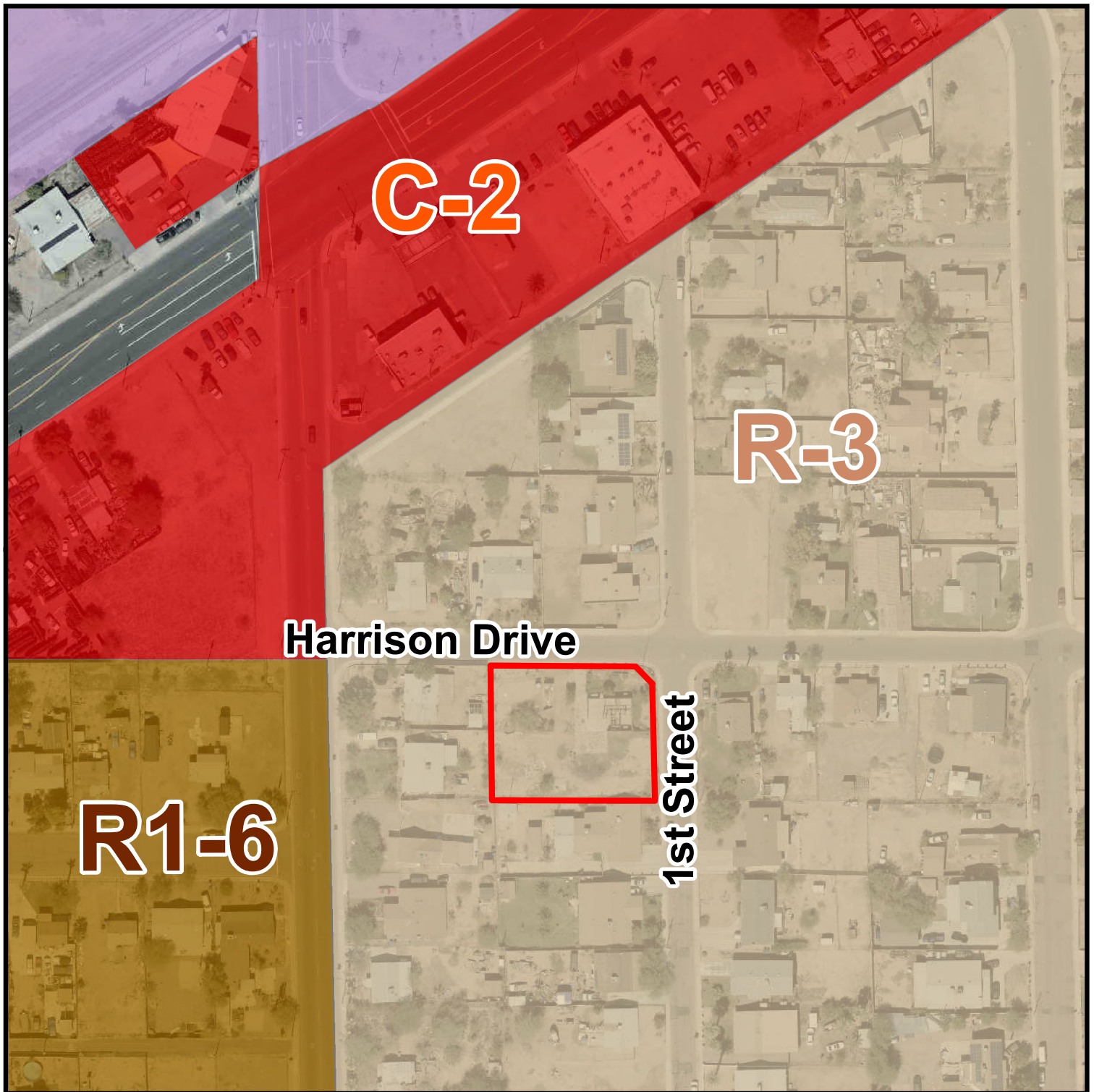


 Project Location



Exhibit B

Zoning Vicinity Map



Zoning Vicinity Map



 Project Location



Exhibit C

Minor Land Division

CITY COUNCIL REPORT

SUBJECT: Public Hearing - Request of Withdraw of Application PL-20-0167 - Zoning Text Amendment - Section 1303.B Medical Marijuana Dispensary Hours of Operation

MEETING DATE: 1/19/2021

TO: Mayor and Council

FROM: Kevin Murphy, Development & Engineering Services Director, (623) 333-4011

THROUGH: Tracy Stevens, Deputy City Manager, (623) 333-1014

REVIEWED: Charles A. Montoya, City Manager, (623) 333-1016

PURPOSE:

City Council will consider a request to withdraw application PL-20-0167, a request by Ms. Lauren Niehaus, Harvest Health & Recreation, Inc., for a text amendment to the Zoning Ordinance, Section 1303.B (Medical Marijuana Uses/Requirements), extending the permitted hours of operation of medical marijuana dispensaries from 8:00 P.M. to 10:00 P.M. In a letter dated December 23, 2020, the applicant has requested a withdrawal of this item. The Council will take appropriate action.

BACKGROUND:

The voters of the State of Arizona passed the Arizona Medical Marijuana Act (AMMA), Proposition 203 on November 2, 2010. The act legalized the use, sale, and cultivation of marijuana for medical purposes, allowing for the establishment of medical marijuana dispensaries within the State of Arizona.

To comply with the state regulations, on February 22, 2011, the City of Avondale approved Resolution 2957-211 and Ordinance 1449-211, adopting Section 13, Medical Marijuana Uses regulations of the Avondale Zoning Ordinance. The allowed hours of operation were limited to Monday through Friday, 9:00 A.M. to 6:00 P.M.

On May 5, 2014, City Council approved a City-initiated Zoning Ordinance text amendment, Ordinance 1544-514, allowing dispensaries to operate on weekends between the hours of 9:00 A.M to 6:00 P.M., duplicating the allowed hours of operation for weekday operations.

A City-initiated Zoning Ordinance text amendment for several sections, Ordinance 1703-919, was approved on September 12, 2019. As part of that multi-faceted amendment, hours of operation for dispensaries were extended two (2) hours, allowing this establishment to remain open until 8:00 P.M.

The City has one medical marijuana dispensary.

SUMMARY OF REQUEST:

Harvest House of Cannabis, formerly known as Golden Leaf Wellness, opened for business in February 2016.

The dispensary is located in a converted residence at 3828 South Vermeersch Road in Avondale.

The applicant, Ms. Lauren Niehaus, Harvest Health & Recreation, Inc., on behalf of the Harvest House of Cannabis dispensary, had submitted an application to amend Avondale Zoning Ordinance Section 1303.B to further expand permitted hours of operation for the business. (Exhibits A and B).

PUBLIC PARTICIPATION:

All required notifications for the Planning Commission and City Council public hearings, including mailings to owners within 1,000 feet of the site, public hearing notice signs on the property, and display ads in the Southwest Valley Arizona Republic, were completed at least fifteen (15) days prior to the meeting as required. Staff has not received any feedback on the proposal by phone or email.

At the time of writing this report, two comments related to the proposal have been posted on the City's aVOICE digital forum. One comment pertaining to the proposal was in favor of the extended hours and the other comment was opposed to the extended hours.

Staff has prepared an overall text amendment to the Zoning Ordinance for recreational marijuana due to the passage of a recent ballot initiative regarding Marijuana Establishments, also known as recreational marijuana. This text amendment is being brought before City Council at this same meeting.

PLANNING COMMISSION ACTION:

On October 21, 2020, Planning Commission conducted a public hearing and voted 6-0 to recommend approval of the proposed text amendments to the Zoning Ordinance. Commissioner Thompson asked the applicant why they were not proposing unrestricted hours, the same hours as the City of Surprise. The applicant explained they wanted the hours to align with the Arizona Administrative Code requirements.

DISCUSSION:

To date, the City of Avondale has taken a conservative approach regarding the hours of operation of medical marijuana dispensaries. In comparison the following are the hours of operation allowed by other cities in the west valley.

- Goodyear - 8:00 P.M. – 7:00 P.M.
- Litchfield Park - 8:00 A.M. – 7:00 P.M.
- Peoria - 8:00 A.M. – 9:00 P.M.
- Tolleson - 7:00 A.M - 9:00 P.M
- Phoenix - 8:00 A.M. – 10:00 P.M
- Glendale - 8:00 A.M. - 10:00 P.M.
- Surprise - No restrictions

BUDGET IMPACT:

No budget impacts.

RECOMMENDATION:

In a letter dated December 23, 2020, the applicant has requested to withdraw this item from consideration. Staff recommends City Council **WITHDRAW** Application PL-20-0167 from consideration as requested by the applicant.

PROPOSED MOTION:

I move that City Council **WITHDRAW** this item.

Exhibit A

Text Amendment Narrative

HARVEST

Project Narrative

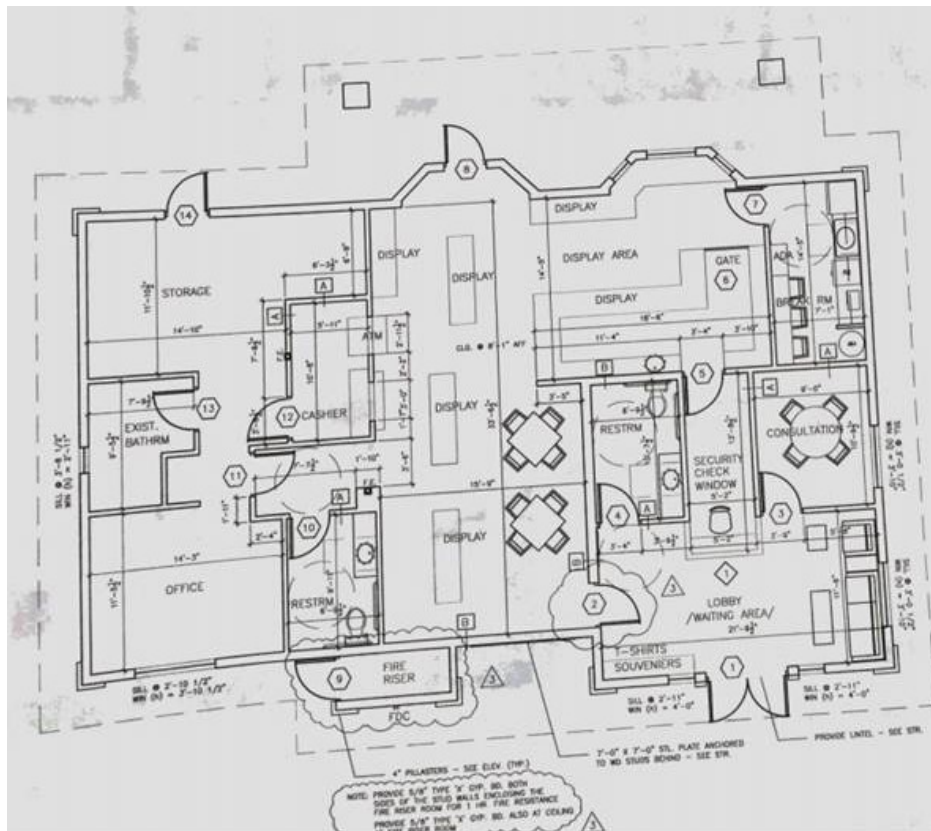
Harvest of Avondale
3828 S. Vermeersch Rd
Avondale, AZ 85323

Proposal Overview

Harvest of Avondale, a medical marijuana dispensary located at 3828 S. Vermeersch Rd, Avondale, AZ 85323, is seeking a text amendment to Avondale city code regarding the extension of our operating hours.

Harvest of Avondale is currently open from 9:00am – 8:00pm. We are seeking to extend our closing hour to 10:00pm to be in line with Arizona Administrative Code. Avondale residents who work later hours are forced to either rush to make the 8:00 pm deadline or travel to a neighboring jurisdiction, causing Avondale to lose out on tax revenue. Harvest believes that an extension of operating hours will help to better serve the medical marijuana patient community in Avondale.

Site Information





Pre-Application Number: PL-20-0096

Existing Parking: 14 spaces

Proposed land use: Medical Marijuana Dispensary

Improvements: Continued upkeep of grounds and existing facility

Surrounding area compatibility: Zoning A-1

Restrictions affecting development: N/A

Contact:

Lauren Niehaus

Government Relations Specialist

Harvest Health and Recreation, Inc.

LNiehaus@harvestinc.com

303.827.9039

Exhibit B

Abstract of Proposed Changes

- B. A medical marijuana dispensary shall have operating hours not earlier than 9:00 a.m. and not later than ~~8:00 p.m.~~10:00 p.m.
- C. A medical marijuana dispensary or medical marijuana cultivation location shall:
1. Be located in a permanent building and may not be located in a trailer, cargo container, mobile or modular unit, mobile home, recreational vehicle or other mobile vehicle.
 2. Not have drive-through service.
 3. Not emit dust, fumes, vapors or odors into the environment.
 4. Not provide off-site delivery of medical marijuana.
 5. Prohibit consumption of marijuana on the premises.
 6. Not have outdoor seating areas, but shall have adequate indoor seating to prevent outside loitering.
 7. Display a current City of Avondale business license and a State of Arizona tax identification number.
 8. Install lighting to illuminate the exterior and interior of the building and all entrances and exits to the facility. Exterior lighting shall be at least five (5) foot candles, measured at ground level, and shall remain on during all hours between sunset and sunrise each day. Twenty-four (24) hours each day, the medical marijuana dispensary or medical marijuana cultivation location shall illuminate the entire interior of the building, with particular emphasis on the locations of any counter, safe, storage area and any location where people are prone to congregate. The lighting must be of sufficient brightness to ensure that the interior is readily visible from the exterior of the building from a distance of one hundred (100) feet.
 9. Provide security guards at the main entrances and exits during all hours of operation. For the purposes of this Section, “security guard” shall mean licensed and duly bonded security personnel registered pursuant to ARIZ. REV. STAT. § 32-2601 *et seq.* Prior to opening for business, the medical marijuana dispensary or medical marijuana cultivation location shall provide all property owners within a five hundred (500) foot radius of the medical marijuana dispensary or medical marijuana cultivation location with written notification via first class U.S. Mail of the security company responsible for providing its security services.
 10. Have an exterior appearance compatible with commercial structures already constructed or under construction within the immediate neighborhood to insure against blight, deterioration, or substantial diminishment or impairment of property values in the vicinity.
 11. Allow unrestricted access by City code enforcement officers, police officers or other agents or employees of the City requesting admission for the purpose of determining compliance with these standards.

HARVEST

December 23, 2020

Jodie Novak MEP, CPM
Assistant Director, Development & Engineering Services Department
City of Avondale
11465 W. Civic Center Dr., #110
Avondale, AZ, 85323

RE: Withdrawal notice for Application PL-20-0167

Assistant Director Novak,

I am writing on behalf of Applicant Touraj Jason Vedadi who is no longer a Harvest employee.

Harvest hereby wishes to withdraw our request for a text amendment to the Avondale zoning ordinance 1303B relating to extending hours of operation for a medical marijuana dispensary (Application PL-20-0167).

Thank you for your time and consideration on this matter. We look forward to continuing our collaborative relationship with the City of Avondale.

Please don't hesitate to reach out with any questions or concerns.

Thank you,



Lauren Niehaus
Government Relations Specialist
Harvest Health & Recreation Inc.
LNiehaus@Harvestinc.com
303.827.9039

CITY COUNCIL REPORT

SUBJECT: Public Hearing – Resolution 1005-0121 and Ordinance 2007-0121 – City of Avondale Marijuana Uses - Application PL-20-0260

MEETING DATE: 1/19/2021

TO: Mayor and Council

FROM: Kevin Murphy, Development & Engineering Services Director, (623) 333-4011

THROUGH: Tracy Stevens, Deputy City Manager, (623) 333-1014

REVIEWED: Charles A. Montoya, City Manager, (623) 333-1016

PURPOSE:

City Council will hold a public hearing and consider a request to adopt Resolution 1005-0121, declaring as a public record a document entitled City of Avondale Marijuana Uses Regulations, and adopt Ordinance 2007-0121, adopting the aforementioned document as Section 13 of the Zoning Ordinance and revising Sections 1 and 13 relating to Marijuana Uses. The Council will take appropriate action. The amendments to Avondale Zoning Ordinance Section 1 (Administration and Procedures) and Section 13 (Marijuana Uses), will allow for continued refinement of the Zoning Ordinance to address a recently approved ballot initiative related to marijuana establishments and clarify restrictions for marijuana related uses and operations. The Council will take appropriate action.

BACKGROUND:

The Avondale Zoning Ordinance was first adopted in 1951 and has been updated numerous times, the last of which was approved by City Council on December 7, 2020 and has an effective date of January 7, 2021.

SUMMARY OF REQUEST:

The following is a summary of the proposed amendments to the Zoning Ordinance referenced by section number. The specific proposed text for each of these sections may be found in Exhibit A and in the attached Ordinance.

Section 1 (Administration and Procedures)

115 – Definitions: Add a definition for Marijuana Establishment and remove definition for Medical Marijuana Cultivation Location.

Section 13 (Marijuana Uses)

Section Title: Rename from Medical Marijuana Uses to Marijuana Uses.

1301 – Purpose and Applicability: Add Marijuana Establishments and Marijuana Establishment Cultivation Locations to the purpose and applicability of Section 13.

1302 – Location Restrictions; Medical Marijuana Dispensaries and Marijuana Establishments:

- Rename title from Location Restrictions to Location Restrictions; Medical Marijuana Dispensaries and Marijuana Establishments.
- Add and amend location restrictions for marijuana dispensaries, establishments and cultivation facilities.
- Prohibit new Marijuana Establishments unless as a dual licensee.
- Maintain 2,000-foot distance requirement from other similar facilities, substance abuse treatment facilities, schools, childcare centers, public libraries, parks, and churches/paces of worship.

1303 – Marijuana Establishment Providing Cultivation Services to Medical Marijuana Dispensary Development Standards:

- Rename title from Requirements to Marijuana Establishment Providing Cultivation Services to Medical Marijuana Dispensary Development Standards.
- Move original text to new Section 1306.
- Add new text regarding floor area limitations for marijuana operations.

1304 – Medical Marijuana Qualified Patients and Caregivers, Cultivation: Create subsection regarding qualified patients and caregiver, cultivation from previous text in Section 1302.

1305 – Marijuana Establishments Providing Cultivation Services to Marijuana Establishments Engaged in the Retail Sale of Marijuana Development Standards: Create new subsection with text regarding area limitations for cultivation locations.

1306 – Requirements; Medical Marijuana Dispensary: Create new subsection with text from previous Section 1303 regarding dispensary operations with additional operational restrictions.

1307 – Requirements; Marijuana Establishments: Create new subsection regarding the operational restrictions and requirements for marijuana establishments.

ANALYSIS:

The Zoning Ordinance Text Amendments are not anticipated to result in any adverse impacts on the community. The amendments will allow for continued refinement of the Zoning Ordinance to address a recently approved ballot initiative related to marijuana establishments and clarify restrictions for marijuana related uses and operations.

PUBLIC PARTICIPATION:

All required notifications for Planning Commission and City Council public hearings have been completed. The meetings were advertised in the Wednesday, November 25, 2020, edition of the Southwest Valley Arizona Republic. Staff has not received any feedback on the proposal by phone or email.

PLANNING COMMISSION ACTION:

On December 16, 2020, Planning Commission conducted a public hearing and voted 4-2 to recommend approval of the proposed amendments to the Zoning Ordinance. No member of the public spoke during the public hearing. Commission had the following question:

- Commissioner Thompson asked what was the purpose of not allowing stand alone marijuana establishments. Staff responded that as this is a new use allowed in Arizona, Staff is recommending the City begin with only permitting dual license operations of medical marijuana dispensaries and marijuana establishments and if the City wishes to reconsider this restriction at a later date, it can amend the Zoning Ordinance to be less restrictive with this land use in the future.

DISCUSSION:

STRATEGIC PLAN:

INITIATIVE: Encourage & Support Creative Innovation in Development & Service Delivery

- STRATEGIC GOAL: Encourage a flexible environment responsive to market trends

BUDGET IMPACT:

No budget impacts.

RECOMMENDATION:

City Council will conduct a public hearing and ADOPT a Resolution declaring as a public record a document entitled "City of Avondale Marijuana Uses Regulations"; and ADOPT an Ordinance adopting the aforementioned document as Section 13 of the Zoning Ordinance and revising Sections 1 and 13 relating to Marijuana Uses.

PROPOSED MOTION:

1. I move that City Council ADOPT a Resolution declaring as a public record a document entitled "City of Avondale Marijuana Uses Regulations".
2. I move that City Council ADOPT an Ordinance adopting the aforementioned document as Section 13 of the Zoning Ordinance and revising Sections 1 and 13 relating to Marijuana Uses.

Exhibit A

Abstract of Proposed Changes

Section 1 (Administration and Procedures) - 115 Definitions

~~Medical Marijuana Cultivation Location: Any of the following: (A) a medical marijuana dispensary at which cultivation occurs for sale at that medical marijuana dispensary, (B) the one (1) additional location, if any, duly identified pursuant to ARIZ. REV. STAT. § 36-2806(F), as amended, during the process of registering a medical marijuana dispensary, where marijuana will be cultivated for sale at a medical marijuana dispensary, (C) any location identified pursuant to ARIZ. REV. STAT. § 362804.02(A) (3) (f), as amended, for cultivation of medical marijuana by a designated caregiver or qualifying patient (as defined in ARIZ. REV. STAT. § 36-2801, as amended) for a qualifying patient's medical use or (D) a facility that incorporates or processes medical marijuana into a consumable or edible product.~~

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Marijuana Establishment: an entity licensed by the Arizona Department of Health Services to operate all of the following:

1. A single retail location at which the licensee may sell marijuana and marijuana products to consumers, cultivate marijuana and manufacture marijuana products.
2. A single off-site cultivation location at which the licensee may cultivate marijuana, process marijuana and manufacture marijuana products, but from which marijuana and marijuana products may not be transferred or sold to consumers.
3. A single off-site location at which the licensee may manufacture marijuana and marijuana products and package and store marijuana and marijuana products, but from which marijuana and marijuana products may not be transferred or sold to consumers.

Marijuana Establishments shall not include Marijuana Testing Facilities as defined in Arizona Revised Statutes Section 36-2850

SECTION 13 ~~MEDICAL~~ MARIJUANA USES

1301 Purpose and Applicability

The purpose of this Section 13 is to provide for regulations necessary to protect the public health, safety and welfare for the general public by limiting the possible negative secondary effects of ~~Medical Marijuana~~ marijuana facilities. The provisions of this Section 13 shall apply to all Medical Marijuana Dispensaries and Marijuana Establishments and Medical Marijuana and Marijuana Establishment ~~Marijuana~~ Cultivation Locations located within the corporate limits of the City of Avondale.

1302 Location Restrictions; Medical Marijuana Dispensaries and Marijuana Establishments

A. Medical marijuana dispensaries, marijuana establishments or ~~medical~~ marijuana cultivation facilities that provide product to a medical marijuana dispensary or a marijuana establishment locations are prohibited from being established, operated or licensed in any City of Avondale Zoning-zoning District-district other than A-1 and are further limited as listed below.

1. The operation of a Marijuana Establishment is prohibited in the City, except where authorized for a dual licensee who:

a. Operates both a nonprofit medical marijuana dispensary and a marijuana establishment cooperatively in a shared location; and

b. Has not forfeited or terminated the nonprofit medical marijuana dispensary registration from the Arizona Department of Health Services, (herein after referred to as the “Department”).

2. The operation of a marijuana establishment consisting of an off-site cultivation location is prohibited in the City, except where authorized for:

a. A single cultivation location for a nonprofit medical marijuana dispensary owned or controlled by a licensee holding a license in good standing from the Department for a medical marijuana dispensary.

b. A single cultivation location for a retail marijuana establishment owned or controlled by a licensee holding a license in good standing from the Department for a retail marijuana establishment.

~~3. If a licensee has surrendered, terminated for forfeited their license for a nonprofit medical marijuana dispensary or a retail marijuana establishment, their permit for the cultivation facility shall automatically terminate upon action by the Department~~

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B. ~~Medical~~ marijuana dispensaries and ~~medical m~~marijuana cultivation ~~locations providing product to a medical marijuana dispensary or marijuana establishment locations~~ shall meet the following minimum separation requirements, measured in a straight line from the closest property boundary line of the parcel containing the medical marijuana dispensary, ~~marijuana establishment~~ or marijuana cultivation location to the closest property boundary line of the parcel containing any existing uses listed below:

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1. Two thousand (2,000) feet from any other medical marijuana dispensary, ~~marijuana establishment~~ or ~~medical~~ marijuana cultivation location.
2. Two thousand (2,000) feet from a substance abuse diagnostic and treatment facility or other drug or alcohol rehabilitation facility.
3. Two thousand (2,000) feet from a public, private, parochial, charter, dramatic, dancing or music school, a learning center, or other similar school or educational or entertainment facility that caters to children.
4. Two thousand (2,000) feet from a childcare center or registered residential child care facility.
5. Two thousand (2,000) feet from a public library.
6. Two thousand (2,000) feet from a park.
7. Two thousand (2,000) feet from a church or place of worship.

C. ~~A marijuana establishment engaging in the cultivation of marijuana and not associated with an Arizona medical marijuana dispensary engaging in the sale of marijuana to qualified individuals is prohibited, and only one (1) medical marijuana cultivation location shall be permitted for the single medical marijuana dispensary engaging in the sale of marijuana to qualified individuals located in the City with which it is associated. The provisions of this Subsection 1302 (C) shall not apply to locations identified pursuant to ARIZ. REV. STAT. § 36-2804-02(A)(3)(f) for cultivation of medical marijuana by a designated caregiver or qualifying patient for a qualifying patients medical use.~~

~~1. The provisions of this subsection 1302 (C) shall not apply to locations identified pursuant to ARIZ. REV. STAT. § 36-2804-02(A)(3)(f) for cultivation of medical marijuana by a designated caregiver or qualifying patient for a qualifying patients medical use.~~

D. ~~A marijuana establishment engaging in the cultivation of marijuana and not associated with a marijuana establishment engaging in the retail sale of marijuana in the City is prohibited, and only one (1) cultivation location shall be permitted for the single marijuana establishment engaging in the retail sale of marijuana located in the City with which it is associated.~~

E. Dual licensee as set forth in Subsection 1302 (A) (1) means that the medical marijuana dispensary and the marijuana establishment engaging in the retail sale of marijuana shall be:

1. Located in a single facility.
2. May have a shared entrance but shall have physically separate waiting areas and dispensary and retail sales areas
3. May have shared parking, however parking will be calculated as if two (2) businesses are located at the physical location

1303 Marijuana Establishment Providing Cultivation Services to Medical Marijuana Dispensary Development Standards

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~~The provisions of this subsection 1302 (C) shall not apply to locations identified pursuant to ARIZ. REV. STAT. § 36-2804.02(A) (3) (F) for cultivation of medical marijuana by a designated caregiver or qualifying patient for a qualifying patient's medical use.~~

~~AD. The following size limitations shall apply to any medical marijuana dispensary:~~

- ~~1. The total maximum floor area of a medical marijuana dispensary shall not exceed two thousand five hundred (2,500) square feet.~~
- ~~2. The secure storage area for the medical marijuana stored at the marijuana dispensary shall not exceed five hundred (500) square feet of the total two thousand five hundred (2,500) square foot maximum floor area of a marijuana dispensary.~~

A. The following size limitations shall apply to any marijuana establishment providing cultivation services to a medical marijuana dispensary and located at a separate location:

1. The total maximum floor area of a marijuana establishment cultivation location shall not exceed two thousand five hundred (2,500) square feet.
2. The secure storage area for the medical marijuana stored at the marijuana establishment cultivation location shall not exceed five hundred (500) square feet of the total two thousand five hundred (2,500) square foot maximum floor area of a marijuana establishment cultivation location.

BE. The following size limitations shall apply to any ~~medical~~ marijuana ~~establishment~~ cultivation location associated with and located at the same location as the a medical marijuana dispensary:

1. The total maximum floor area of a ~~medical~~-marijuana establishment cultivation location shall not exceed three thousand (3,000) square feet.
2. The secure storage area for the medical marijuana stored at the ~~medical~~ marijuana establishment cultivation location shall not exceed one thousand (1,000) square feet of the three thousand (3,000) square feet total maximum floor area of a ~~medical~~ marijuana establishment cultivation location.
3. For a marijuana establishment engaging in cultivation for a medical marijuana dispensary ~~that also is a medical marijuana cultivation location~~, the total maximum floor area that may also be used for cultivation and incorporation or processing of the medical marijuana into consumable or edible products inclusive of any secure storage area, shall not exceed three thousand (3,000) square feet. The secure storage area for the medical marijuana stored at a medical marijuana dispensary that also is a cultivation location shall not exceed one thousand five hundred (1,500) square feet.

1304 Medical Marijuana Qualified Patients and Caregivers, Cultivation

ΔF. The following size limitations shall apply to any medical marijuana cultivation location associated with a qualified patient or designated caregiver:

1. All conditions and restrictions for medical marijuana cultivation locations apply except that the designated caregiver cultivation area is limited to a total two hundred fifty (250) square feet maximum, including any storage areas.
2. More than one (1) designated caregiver may not co-locate cultivation locations.

1305 Marijuana Establishments Providing Cultivation Services to Marijuana Establishments Engaged in the Retail Sale of Marijuana Development Standards

A. The following size limitations shall apply to any marijuana establishment providing cultivation services to a marijuana establishment and located at a separate location:

1. The total maximum floor area of a marijuana establishment engaged in the retail sale of marijuana shall not exceed two thousand five hundred (2,500) square feet.
2. The secure storage area for the marijuana stored at the marijuana establishment engaged in the retail sale of marijuana shall not exceed five hundred (500) square feet of the total two thousand five hundred (2,500) square foot maximum floor area of a marijuana establishment.

B. The following size limitations shall apply to any marijuana establishment cultivation location associated with and located at the same location as a marijuana establishment engaged in the retail sale of marijuana:

1. The total maximum floor area of a marijuana establishment cultivation location shall not exceed three thousand (3,000) square feet.

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- ~~2. The secure storage area for the marijuana stored at the marijuana establishment cultivation location shall not exceed one thousand (1,000) square feet of the three thousand (3,000) square feet total maximum floor area of a retail marijuana establishment.~~
- ~~3. For a marijuana establishment engaging in cultivation for a marijuana establishment engaged in the retail sale of marijuana, the total maximum floor area that may also be used for cultivation and incorporation or processing of the marijuana into consumable or edible products inclusive of any secure storage area, shall not exceed three thousand (3,000) square feet. The secure storage area for the marijuana stored at a marijuana establishment that also is a cultivation location shall not exceed one thousand five hundred (1,500) square feet.~~

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13063 Requirements; Medical Marijuana Dispensary

The following minimum requirements shall apply to all “medical marijuana dispensary” ~~and “medical marijuana cultivation location”~~ uses located in the Zoning District where such uses are permitted:

- A. In conjunction with the application requirements set forth in Section 1 above, an applicant for any medical marijuana dispensary ~~or medical marijuana cultivation location~~ shall provide all of the following:
 1. A notarized authorization, executed by the property owner, acknowledging and consenting to the proposed use of the property as a medical marijuana dispensary. ~~or a medical marijuana cultivation location.~~
 2. The legal name of the medical marijuana dispensary ~~or medical marijuana cultivation location.~~
 - ~~3. If the application is for a medical marijuana cultivation location, the name and location of the medical marijuana dispensary with which it is associated or, in the case of designated caregivers or qualifying patients, the names of the qualifying patients for which the medical marijuana is being cultivated.~~
 34. The name, address and birth date of each officer and board member of the nonprofit medical marijuana dispensary agent.
 45. The name, address, birth date and valid registry identification card number of (a) each medical marijuana dispensary agent if the application is related to a medical marijuana dispensary ~~or an associated marijuana establishment related medical marijuana~~ cultivation location and (b) each designated caregiver and qualifying patient if the

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application is related to a medical marijuana cultivation location associated with such qualifying patient and designated caregiver.

~~56.~~ A copy of the operating procedures adopted in compliance with ARIZ. REV. STAT. § 36-2804(B) (1) (c).

~~67.~~ A notarized certification that none of the medical marijuana dispensary officers or board members has been convicted of any of the following offenses:

a. A violent crime, as defined in ARIZ. REV. STAT. § 13-901.03(B), that was classified as a felony in the jurisdiction where the person was convicted.

b. A violation of state or federal controlled substance law that was classified as a felony in the jurisdiction where the person was convicted except an offense for which the sentence, including any term of probation, incarceration or supervised release, was completed ten (10) or more years earlier or an offense involving conduct that would be immune from arrest, prosecution or penalty under ARIZ. REV. STAT. § 36-2811 except that the conduct occurred before the effective date of that statute or was prosecuted by an authority other than the state of Arizona.

~~78.~~ A notarized certification that none of the medical marijuana dispensary officers or board members has served as an officer or board member for a medical marijuana dispensary that has had its registration certificate revoked.

~~89.~~ A floor plan showing the location, dimensions and type of security measures demonstrating that the medical marijuana dispensary or medical marijuana cultivation location will be secured, enclosed and locked as required by law.

~~940.~~ A scale drawing depicting the property lines and the separations from the nearest property boundary of the parcel containing the medical marijuana dispensary or medical marijuana cultivation location to the property boundary of the parcel containing any existing uses listed in Sections ~~1302~~ or ~~1303~~ above. If any of the uses are located within fifty (50) feet of the minimum separation, the drawing, showing actual surveyed separations, shall be prepared by a registered land surveyor.

B. A medical marijuana dispensary shall have operating hours not earlier than 9:00 a.m. and not later than 8:00 p.m.

C. A medical marijuana dispensary ~~or medical marijuana cultivation location~~ shall:

1. Be located in a permanent building and may not be located in a trailer, cargo container, mobile or modular unit, mobile home, recreational vehicle or other mobile vehicle.

2. Not have drive-through service.

3. Shall not emit dust, fumes, vapors or odors into the environment from the facility and ensure that ventilation, air filtration, building and design standards are compatible with adjacent uses and the requirements of adopted building codes of the City.

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~~Not emit dust, fumes, vapors or odors into the environment.~~

4. Not provide off-site delivery of medical marijuana.
5. Prohibit ~~consumption-smoking~~ of marijuana or the consumption of marijuana infused products on the premises.
6. Not have outdoor seating areas, but shall have adequate indoor seating to prevent outside loitering.
7. ~~Not sell marijuana or marijuana products, except as permitted by state law to eligible patients.~~
8. ~~Not display or keep marijuana or marijuana products that is visible from outside the premises.~~
9. ~~Comply with applicable state and county health regulations for food preparation and handling.~~
10. ~~Comply with applicable laws to safely and securely engage in extraction processes.~~
117. Display a current City of Avondale business license and a State of Arizona tax identification number.
128. Install lighting to illuminate the exterior and interior of the building and all entrances and exits to the facility. Exterior lighting shall be at least five (5) foot candles, measured at ground level, and shall remain on during all hours between sunset and sunrise each day. Twenty-four (24) hours each day, the ~~marijuana~~ Marijuana dispensary ~~Dispensary~~ or marijuana cultivation location shall illuminate the entire interior of the building, with particular emphasis on the locations of any counter, safe, storage area and any location where people are prone to congregate. The lighting must be of sufficient brightness to ensure that the interior is readily visible from the exterior of the building from a distance of one hundred (100) feet.
139. Provide security guards at the main entrances and exits during all hours of operation. For the purposes of this Section, “security guard” shall mean licensed and duly bonded security personnel registered pursuant to ARIZ. REV. STAT. § 32-2601 *et seq.* Prior to opening for business, the marijuana dispensary or marijuana cultivation location shall provide all property owners within a five hundred (500) foot radius of the marijuana dispensary or marijuana cultivation location with written notification via first class U.S. Mail of the security company responsible for providing its security services.
140. Have an exterior appearance compatible with commercial structures already constructed or under construction within the immediate neighborhood to insure against blight,

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deterioration, or substantial diminishment or impairment of property values in the vicinity.

- 1~~5~~4. Allow unrestricted access by City code enforcement officers, police officers or other agents or employees of the City requesting admission for the purpose of determining compliance with these standards.
- 1~~6~~2. Not display signs, or any other advertising matter used in connection with the medical marijuana dispensary or marijuana establishment cultivation of any offensive nature and such signs shall in no way be contrary to the City code, or obstruct the view of the interior of the premises viewed from the outside.
- 1~~7~~3. Comply with all other applicable property development and design standards of the City of Avondale.

D. To ensure that the operations of marijuana dispensaries are in compliance with Arizona law and to mitigate the adverse secondary effects from operations of dispensaries, marijuana dispensaries shall operate in compliance with the following standards:

1. No doctor shall issue a written certification on-site for medical marijuana.
2. There shall be no on-site sales of alcohol, tobacco or food, other than food products containing infused marijuana. There shall be no on-site consumption of food, alcohol, tobacco or marijuana; provided that employees may consume food on-site so long as it does not contain infused marijuana.
3. Medical marijuana dispensaries shall only dispense medical marijuana to qualified patients and their designated caregivers as defined in ARIZ. REV. STAT. § 36-2801 *et seq.*
4. Medical marijuana dispensaries shall notify patrons of the following verbally and through posting of a sign in a conspicuous location at the medical marijuana dispensary:
 - a. Use of medical marijuana shall be limited to the patient identified on the doctor's written certification. Secondary sale, barter or distribution of medical marijuana is a crime and can lead to arrest.
 - b. Patrons must immediately leave the site and not consume medical marijuana until at home or in an equivalent private location. Medical marijuana dispensary staff shall monitor the site and vicinity to ensure compliance.
5. Medical marijuana dispensaries shall not provide marijuana to any individual in an amount not consistent with personal medical use or in violation of state law and regulations related to medical marijuana use.
6. Medical marijuana dispensaries shall not store more than two hundred dollars (\$200) in cash overnight on the premises.

7. Any qualified patient under eighteen (18) years of age shall be accompanied by a parent or legal guardian. Except for such parent or legal guardian, no persons other than qualified patients and designated caregivers shall be permitted within a medical marijuana dispensary premises.
8. Medical marijuana dispensaries shall provide law enforcement and all interested neighbors with the name and phone number of an on-site community relations staff person to notify if there are operational problems with the establishment.

1307 Requirements; Marijuana Establishments

For purposes of this Section 1307, Marijuana Establishment shall mean (i) a location for the retail sale of marijuana to individuals 21 years of age or over or (ii) a marijuana cultivation location that is specifically associated with a single medical marijuana dispensary or a single marijuana establishment engaging in the retail sale of marijuana. The following minimum requirements shall apply to all marijuana establishments located in the zoning district where such uses are permitted.

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- A. In conjunction with the application requirements set forth in Section 1 above, an applicant for a marijuana establishment shall provide all of the following:
 1. A notarized authorization, executed by the property owner, acknowledging and consenting to the proposed use of the property as a marijuana establishment. If a new marijuana establishment is proposed to be collocated with an existing medical marijuana dispensary, the property owner shall consent to the marijuana establishment.
 2. The legal name of the marijuana establishment
 3. A copy of a certification from the Arizona Corporation showing that the business is in good standing, if a corporation or limited liability company.
 4. The name, address, birth date and valid marijuana facility agent identification card of (a) each employee of a marijuana establishment. In the best interest of the city, the information pursuant to subsection 4 shall not be subject to disclosure as a public record.
 5. A notarized certification that none of the marijuana establishment officers or board members has been convicted of any of the following offenses:
 - a. A violent crime, as defined in ARIZ. REV. STAT. § 13-901.03(B), that was classified as a felony in the jurisdiction where the person was convicted.
 - b. A violation of state or federal controlled substance law that was classified as a felony in the jurisdiction where the person was convicted except an offense for which the sentence, including any term of probation, incarceration or supervised release, was completed ten (10) or more years earlier or an offense involving conduct that would be immune from arrest, prosecution or penalty under ARIZ. REV. STAT. § 36-2811 except that the conduct occurred before the effective date of that statute or was prosecuted by an authority other than the state of Arizona.

6. A notarized certification that none of the marijuana establishment managers, officers board members has served as an officer or board member for a marijuana establishment that has had its registration certificate revoked.

7. Shall submit a written security plan to the City that describes the actions taken to deter and prevent unauthorized entrance into limited access areas including use of security equipment, exterior lighting to facilitate surveillance, and electronic monitoring such as video cameras. In the best interest of the city, the information pursuant to subsection 4 shall not be subject to disclosure as a public record.

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8. A scale drawing depicting the property lines and the separations from the nearest property boundary of the parcel containing the marijuana establishment to the property boundary of the parcel containing any existing uses listed in Sections 1302 and 1303 above. If any of the uses are located within fifty (50) feet of the minimum separation, the drawing, showing actual surveyed separations, shall be prepared by a registered land surveyor.

B. A marijuana establishment shall have operating hours not earlier than 9:00 a.m. and not later than 8:00 p.m.

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C. A marijuana establishment shall:

1. Be located in a permanent building and may not be located in a trailer, cargo container, mobile or modular unit, mobile home, recreational vehicle or other mobile vehicle.

2. Not provide drive-thru services or offsite deliveries of marijuana or marijuana products.

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3. Shall not emit dust, fumes, vapors or odors into the environment from the facility and ensure that ventilation, air filtration, building and design standards are compatible with adjacent uses and the requirements of adopted building codes of the City.

4. Prohibit smoking of marijuana or the consumption of marijuana infused products on the premises.

5. Not have outdoor seating areas, but shall have adequate indoor seating to prevent outside loitering.

6. Not sell marijuana or marijuana products, except as permitted by state law.

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7. Not display or keep marijuana or marijuana products that is visible from outside the premises.

8. Comply with applicable state and county health regulations for food preparation and handling.

9. Comply with applicable laws to safely and securely engage in extraction processes

10. Display a current City of Avondale business license and a State of Arizona tax identification number.
 11. Install lighting to illuminate the exterior and interior of the building and all entrances and exits to the facility. Exterior lighting shall be at least five (5) foot candles, measured at ground level, and shall remain on during all hours between sunset and sunrise each day. Twenty-four (24) hours each day, the marijuana dispensary or marijuana cultivation location shall illuminate the entire interior of the building, with particular emphasis on the locations of any counter, safe, storage area and any location where people are prone to congregate. The lighting must be of sufficient brightness to ensure that the interior is readily visible from the exterior of the building from a distance of one hundred (100) feet.
 12. Provide security guards at the main entrances and exits during all hours of operation. For the purposes of this Section, “security guard” shall mean licensed and duly bonded security personnel registered pursuant to ARIZ. REV. STAT. § 32-2601 *et seq.* Prior to opening for business, the marijuana dispensary or marijuana cultivation location shall provide all property owners within a five hundred (500) foot radius of the marijuana dispensary or marijuana cultivation location with written notification via first class U.S. Mail of the security company responsible for providing its security services.
 13. Have an exterior appearance compatible with commercial structures already constructed or under construction within the immediate neighborhood to insure against blight, deterioration, or substantial diminishment or impairment of property values in the vicinity.
 14. Allow unrestricted access by City code enforcement officers, police officers or other agents or employees of the City requesting admission for the purpose of determining compliance with these standards.
 15. Not display signs, or any other advertising matter used in connection with the Marijuana Establishment of any offensive nature and such signs shall in no way be contrary to the City code, or obstruct the view of the interior of the premises viewed from the outside.
 16. Comply with all other applicable property development and design standards of the City of Avondale.
- D. To ensure that the operations of marijuana establishments are in compliance with Arizona law and to mitigate the adverse secondary effects from operations of marijuana establishments, marijuana establishments shall operate in compliance with the following standards:
1. There shall be no on-site sales of alcohol, tobacco or food, other than food products containing infused marijuana. There shall be no on-site consumption of food, alcohol, tobacco or marijuana; provided that employees may consume food on-site so long as it does not contain infused marijuana.
 2. Marijuana establishments shall not provide marijuana to any individual in an amount in violation of state law and regulations related to marijuana establishments.

3. Marijuana establishments shall not store more than two hundred dollars (\$200) in cash overnight on the premises.
4. Marijuana establishments shall post notice that you are required to be 21 years of age or older to purchase marijuana.
5. Marijuana establishments shall provide law enforcement and all interested neighbors with the name and phone number of an on-site community relations staff person to notify if there are operational problems with the establishment.

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**CITY OF AVONDALE
MARIJUANA USES REGULATIONS**

SECTION 13 - MARIJUANA USES

1301 Purpose and Applicability

The purpose of this Section 13 is to provide for regulations necessary to protect the public health, safety and welfare of the general public by limiting the possible negative secondary effects of marijuana facilities. The provisions of this Section 13 shall apply to all Medical Marijuana Dispensaries, Marijuana Establishments and marijuana cultivation locations located within the corporate limits of the City of Avondale.

1302 Location Restrictions; Medical Marijuana Dispensaries and Marijuana Establishments

- A. Medical marijuana dispensaries, marijuana establishments or marijuana cultivation locations that provide product to a medical marijuana dispensary or a marijuana establishment are prohibited from being established, operated or licensed in any City of Avondale Zoning District other than A-1 and are further limited as listed below.
 - 1. The operation of a marijuana establishment is prohibited in the City, except where authorized for a dual licensee who:
 - a. Operates both a nonprofit medical marijuana dispensary and a marijuana establishment cooperatively in a shared location; and
 - b. Has not forfeited or terminated the nonprofit medical marijuana dispensary registration from the Arizona Department of Health Services (herein after referred to as the “Department”).
 - 2. The operation of a marijuana establishment consisting of an off-site cultivation location is prohibited in the City, except where authorized for:
 - a. A single cultivation location for a nonprofit medical marijuana dispensary owned or controlled by a licensee holding a license in good standing from the Department for a medical marijuana dispensary.
 - b. A single cultivation location for a retail marijuana establishment owned or controlled by a licensee holding a license in good standing from the Department for a retail marijuana establishment.
 - 3. If a licensee has surrendered, terminated or forfeited their license for a nonprofit medical marijuana dispensary or a retail marijuana establishment, their permit for the cultivation facility shall automatically terminate upon action by the Department.

- B. Medical marijuana dispensaries, marijuana establishments and marijuana cultivation locations providing product to a medical marijuana dispensary or retail marijuana establishment shall meet the following minimum separation requirements, measured in a straight line from the closest property boundary line of the parcel containing the medical marijuana dispensary, marijuana establishment or marijuana cultivation location to the closest property boundary line of the parcel containing any existing uses listed below:
1. Two thousand (2,000) feet from any other medical marijuana dispensary, marijuana establishment or marijuana cultivation location.
 2. Two thousand (2,000) feet from a substance abuse diagnostic and treatment facility or other drug or alcohol rehabilitation facility.
 3. Two thousand (2,000) feet from a public, private, parochial, charter, dramatic, dancing or music school, a learning center, or other similar school or educational or entertainment facility that caters to children.
 4. Two thousand (2,000) feet from a childcare center or registered residential childcare facility.
 5. Two thousand (2,000) feet from a public library.
 6. Two thousand (2,000) feet from a park.
 7. Two thousand (2,000) feet from a church or place of worship.
- C. A marijuana establishment engaging in the cultivation of marijuana and not associated with an Arizona medical marijuana dispensary engaging in the sale of marijuana to qualified individuals is prohibited, and only one (1) marijuana cultivation location shall be permitted for the single medical marijuana dispensary engaging in the sale of marijuana to qualified individuals located in the City with which it is associated. The provisions of this Subsection 1302 (C) shall not apply to locations identified pursuant to ARIZ. REV. STAT. § 36-2804-02(A)(3)(f) for cultivation of medical marijuana by a designated caregiver or qualifying patient for a qualifying patients medical use.
- D. A marijuana establishment engaging in the cultivation of marijuana and not associated with a marijuana establishment engaging in the retail sale of marijuana in the City is prohibited, and only one (1) cultivation location shall be permitted for the single marijuana establishment engaging in the retail sale of marijuana located in the City with which it is associated.
- E. Dual licensee as set forth in Subsection 1302 (A) (1) means that the medical marijuana dispensary and the marijuana establishment engaging in the retail sale of marijuana shall be:

1. Located in a single facility.
2. May have a shared entrance but shall have physically separate waiting areas and dispensary and retail sales areas.
3. May have shared parking, however parking will be calculated as if two businesses are located at the physical location.

1303 Marijuana Establishment Providing Cultivation Services to Medical Marijuana Dispensary Development Standards

A. The following size limitations shall apply to any marijuana establishment providing cultivation services to a medical marijuana dispensary and located at a separate location.

1. The total maximum floor area of a marijuana establishment cultivation location shall not exceed two thousand five hundred (2,500) square feet.
2. The secure storage area for the medical marijuana stored at the marijuana establishment cultivation location shall not exceed five hundred (500) square feet of the total two thousand five hundred (2,500) square foot maximum floor area of a marijuana establishment cultivation location.

B. The following size limitations shall apply to any marijuana establishment cultivation location associated with and located at the same location as a medical marijuana dispensary:

1. The total maximum floor area of a marijuana establishment cultivation location shall not exceed three thousand (3,000) square feet.
2. The secure storage area for the medical marijuana stored at the marijuana establishment cultivation location shall not exceed one thousand (1,000) square feet of the three thousand (3,000) square feet total maximum floor area of a marijuana establishment cultivation location.
3. For a marijuana establishment engaging in cultivation for a medical marijuana dispensary, the total maximum floor area that may also be used for cultivation and incorporation or processing of the medical marijuana into consumable or edible products inclusive of any secure storage area, shall not exceed three thousand (3,000) square feet. The secure storage area for the medical marijuana stored at a medical marijuana dispensary that also is a cultivation location shall not exceed one thousand five hundred (1,500) square feet.

1304 Medical Marijuana Qualified Patients and Caregivers, Cultivation

- A. The following size limitations shall apply to any marijuana cultivation location associated with a qualified patient or designated caregiver:
1. All conditions and restrictions for medical marijuana cultivation locations apply except that the designated caregiver cultivation area is limited to a total two hundred fifty (250) square feet maximum, including any storage areas.
 2. More than one designated caregiver may not co-locate cultivation locations.

1305 Marijuana Establishment Providing Cultivation Services to Marijuana Establishments Engaged in the Retail Sale of Marijuana Development Standards

- A. The following size limitations shall apply to any marijuana establishment providing cultivation services to a marijuana establishment and located at a separate location:
1. The total maximum floor area of a marijuana establishment engaged in the retail sale of marijuana shall not exceed two thousand five hundred (2,500) square feet.
 2. The secure storage area for the marijuana stored at the marijuana establishment engaged in the retail sale of marijuana shall not exceed five hundred (500) square feet of the total two thousand five hundred (2,500) square foot maximum floor area of a marijuana establishment.
- B. The following size limitations shall apply to any marijuana establishment cultivation location associated with and located at the same location as a marijuana establishment engaged in the retail sale of marijuana:
1. The total maximum floor area of a marijuana establishment cultivation location shall not exceed three thousand (3,000) square feet.
 2. The secure storage area for the marijuana stored at the marijuana establishment cultivation location shall not exceed one thousand (1,000) square feet of the three thousand (3,000) square feet total maximum floor area of a retail marijuana establishment.
 3. For a marijuana establishment engaging in cultivation for a marijuana establishment engaged in the retail sale of marijuana, the total maximum floor area that may also be used for cultivation and incorporation or processing of the marijuana into consumable or edible products inclusive of any secure storage area, shall not exceed three thousand (3,000) square feet. The secure storage area for the marijuana stored at a marijuana

establishment that also is a cultivation location shall not exceed one thousand five hundred (1,500) square feet.

1306 Requirements; Medical Marijuana Dispensary

The following minimum requirements shall apply to all medical marijuana dispensary uses located in the Zoning District where such uses are permitted:

- A. In conjunction with the application requirements set forth in Section 1 above, an applicant for any medical marijuana dispensary shall provide all of the following:
 - 1. A notarized authorization, executed by the property owner, acknowledging and consenting to the proposed use of the property as a medical marijuana dispensary.
 - 2. The legal name of the medical marijuana dispensary.
 - 3. The name, address and birth date of each officer and board member of the nonprofit medical marijuana dispensary agent.
 - 4. The name, address, birth date and valid registry identification card number of (a) each medical marijuana dispensary agent if the application is related to a medical marijuana dispensary and marijuana establishment cultivation location (b) each designated caregiver and qualifying patient if the application is related to a marijuana establishment cultivation location associated with such qualifying patient and designated caregiver.
 - 5. A copy of the operating procedures adopted in compliance with ARIZ. REV. STAT. § 36-2804(B)(1)(c).
 - 6. A notarized certification that none of the medical marijuana dispensary officers or board members has been convicted of any of the following offenses:
 - a. A violent crime, as defined in ARIZ. REV. STAT. § 13-901.03(B), that was classified as a felony in the jurisdiction where the person was convicted.
 - b. A violation of state or federal controlled substance law that was classified as a felony in the jurisdiction where the person was convicted except an offense for which the sentence, including any term of probation, incarceration or supervised release, was completed ten or more years earlier or an offense involving conduct that would be immune from arrest, prosecution or penalty under ARIZ. REV. STAT. § 36-2811 except that the conduct

occurred before the effective date of that statute or was prosecuted by an authority other than the state of Arizona.

7. A notarized certification that none of the medical marijuana dispensary officers or board members has served as an officer or board member for a medical marijuana dispensary that has had its registration certificate revoked.
 8. A floor plan showing the location, dimensions and type of security measures demonstrating that the medical marijuana dispensary or marijuana establishment cultivation location will be secured, enclosed and locked as required by law.
 9. A scale drawing depicting the property lines and the separations from the nearest property boundary of the parcel containing the medical marijuana dispensary or marijuana establishment cultivation location to the property boundary of the parcel containing any existing uses listed in Section 1302 or 1303 above. If any of the uses are located within fifty (50) feet of the minimum separation, the drawing, showing actual surveyed separations, shall be prepared by a registered land surveyor.
- B. A medical marijuana dispensary shall have operating hours not earlier than 9:00 a.m. and not later than 8:00 p.m.
- C. A medical marijuana dispensary shall:
1. Be located in a permanent building and may not be located in a trailer, cargo container, mobile or modular unit, mobile home, recreational vehicle or other mobile vehicle.
 2. Not have drive-through service.
 3. Shall not emit dust, fumes, vapors or odors into the environment from the facility and ensure that ventilation, air filtration, building and design standards are compatible with adjacent uses and the requirements of adopted building codes of the City.
 4. Not provide off-site delivery of medical marijuana.
 5. Prohibit smoking of marijuana or the consumption of marijuana infused products on the premises.
 6. Not have outdoor seating areas, but shall have adequate indoor seating to prevent outside loitering.

7. Not sell marijuana or marijuana products, except as permitted by state law to eligible patients.
8. Not display or keep marijuana or marijuana products that are visible from outside the premises.
9. Comply with applicable state and county health regulations for food preparation and handling.
10. Comply with applicable laws to safely and securely engage in extraction processes.
11. Display a current City of Avondale business license and a State of Arizona tax identification number.
12. Install lighting to illuminate the exterior and interior of the building and all entrances and exits to the facility. Exterior lighting shall be at least five (5) foot candles, measured at ground level, and shall remain on during all hours between sunset and sunrise each day. Twenty-four (24) hours each day, the medical marijuana dispensary or marijuana establishment cultivation location shall illuminate the entire interior of the building, with particular emphasis on the locations of any counter, safe, storage area and any location where people are prone to congregate. The lighting must be of sufficient brightness to ensure that the interior is readily visible from the exterior of the building from a distance of one hundred (100) feet.
13. Provide security guards at the main entrances and exits during all hours of operation. For the purposes of this Section, "security guard" shall mean licensed and duly bonded security personnel registered pursuant to ARIZ. REV. STAT. § 32-2601 *et seq.* Prior to opening for business, the medical marijuana dispensary or marijuana establishment cultivation location shall provide all property owners within a five hundred (500) foot radius of the medical marijuana dispensary or marijuana establishment cultivation location with written notification via first class U.S. Mail of the security company responsible for providing its security services.
14. Have an exterior appearance compatible with commercial structures already constructed or under construction within the immediate neighborhood to insure against blight, deterioration, or substantial diminishment or impairment of property values in the vicinity.
15. Allow unrestricted access by City code enforcement officers, police officers or other agents or employees of the City requesting admission for the purpose of determining compliance with these standards.

16. Not display signs, or any other advertising matter used in connection with the medical marijuana dispensary or marijuana establishment cultivation location of any offensive nature and such signs shall in no way be contrary to the City code, or obstruct the view of the interior of the premises viewed from the outside.
 17. Comply with all other applicable property development and design standards of the City of Avondale.
- D. To ensure that the operations of medical marijuana dispensaries are in compliance with Arizona law and to mitigate the adverse secondary effects from operations of dispensaries, medical marijuana dispensaries shall operate in compliance with the following standards:
1. No doctor shall issue a written certification on-site for medical marijuana.
 2. There shall be no on-site sales of alcohol, tobacco or food, other than food products containing infused medical marijuana. There shall be no on-site consumption of food, alcohol, tobacco or medical marijuana; provided that employees may consume food on-site so long as it does not contain infused medical marijuana.
 3. Medical marijuana dispensaries shall only dispense medical marijuana to qualified patients and their designated caregivers as defined in ARIZ. REV. STAT. § 36-2801 *et seq.*
 4. Medical marijuana dispensaries shall notify patrons of the following verbally and through posting of a sign in a conspicuous location at the medical marijuana dispensary:
 - a. Use of medical marijuana shall be limited to the patient identified on the doctor's written certification. Secondary sale, barter or distribution of medical marijuana is a crime and can lead to arrest.
 - b. Patrons must immediately leave the site and not consume medical marijuana until at home or in an equivalent private location. Medical marijuana dispensary staff shall monitor the site and vicinity to ensure compliance.
 5. Medical marijuana dispensaries shall not provide marijuana to any individual in an amount not consistent with personal medical use or in violation of state law and regulations related to medical marijuana use.
 6. Medical marijuana dispensaries shall not store more than two hundred dollars (\$200) in cash overnight on the premises.

7. Any qualified patient under eighteen (18) years of age shall be accompanied by a parent or legal guardian. Except for such parent or legal guardian, no persons other than qualified patients and designated caregivers shall be permitted within a medical marijuana dispensary premises.
8. Medical marijuana dispensaries shall provide law enforcement and all interested neighbors with the name and phone number of an on-site community relations staff person to notify if there are operational problems with the establishment.

1307 Requirements; Marijuana Establishments

For purposes of this Section 1307, Marijuana Establishment shall mean (i) a location for the retail sale of marijuana to individuals 21 years of age or over or (ii) a marijuana cultivation location that is specifically associated with a single medical marijuana dispensary or a single marijuana establishment engaging in the retail sale of marijuana. The following minimum requirements shall apply to all marijuana establishments located in the Zoning District where such uses are permitted:

- A. In conjunction with the application requirements set forth in Section 1 above, an applicant for a marijuana establishment shall provide all of the following:
 1. A notarized authorization, executed by the property owner, acknowledging and consenting to the proposed use of the property as a marijuana establishment. If a new marijuana establishment is proposed to be collocated with an existing medical marijuana dispensary, the property owner shall consent to the marijuana establishment
 2. The legal name of the marijuana establishment
 3. A copy of a certification from the Arizona Corporation showing that the business is in good standing, if a corporation or limited liability company.
 4. The name, address, birth date and valid marijuana establishment agent identification card of (a) each employee of a marijuana establishment. In the best interest of the city, the information pursuant to subsection 4 shall not be subject to disclosure as a public record.
 5. A notarized certification that none of the marijuana establishment officers or board members has been convicted of any of the following offenses:
 - a. A violent crime, as defined in ARIZ. REV. STAT. § 13-901.03(B), that was classified as a felony in the jurisdiction where the person was convicted.

- b. A violation of state or federal controlled substance law that was classified as a felony in the jurisdiction where the person was convicted except an offense for which the sentence, including any term of probation, incarceration or supervised release, was completed ten (10) or more years earlier or an offense involving conduct that would be immune from arrest, prosecution or penalty under ARIZ. REV. STAT. § 36-2811 except that the conduct occurred before the effective date of that statute or was prosecuted by an authority other than the state of Arizona.
 - 6. A notarized certification that none of the marijuana establishment managers, officers board members have served as an officer or board member for a marijuana establishment that has had its registration certificate revoked.
 - 7. Shall submit a written security plan to the City that describes the actions taken to deter and prevent unauthorized entrance into limited access areas including use of security equipment, exterior lighting to facilitate surveillance, and electronic monitoring such as video cameras. In the best interest of the city, the information pursuant to subsection 7 shall not be subject to disclosure as a public record.
 - 8. A scale drawing depicting the property lines and the separations from the nearest property boundary of the parcel containing the marijuana establishment to the property boundary of the parcel containing any existing uses listed in Sections 1302 and 1303 above. If any of the uses are located within fifty (50) feet of the minimum separation, the drawing, showing actual surveyed separations, shall be prepared by a registered land surveyor.
- B. A marijuana establishment shall have operating hours not earlier than 9:00 a.m. and not later than 8:00 p.m.
- C. A marijuana establishment shall:
- 1. Be located in a permanent building and may not be located in a trailer, cargo container, mobile or modular unit, mobile home, recreational vehicle or other mobile vehicle.
 - 2. Not provide drive-thru services or off-site deliveries of marijuana or marijuana products.
 - 3. Shall not emit dust, fumes, vapors or odors into the environment from the facility and ensure that ventilation, air filtration, building and design standards are compatible with adjacent uses and the requirements of adopted building codes of the City.

4. Prohibit smoking of marijuana or the consumption of marijuana infused products on the premises.
5. Not have outdoor seating areas, but shall have adequate indoor seating to prevent outside loitering.
6. Not sell marijuana or marijuana products, except as permitted by state law.
7. Not display or keep marijuana or marijuana products that is visible from outside the premises.
8. Comply with applicable state and county health regulations for food preparation and handling.
9. Comply with applicable laws to safely and securely engage in extraction processes.
10. Display a current City of Avondale business license and a State of Arizona tax identification number.
11. Install lighting to illuminate the exterior and interior of the building and all entrances and exits to the facility. Exterior lighting shall be at least five (5) foot candles, measured at ground level, and shall remain on during all hours between sunset and sunrise each day. Twenty-four (24) hours each day, the marijuana establishment shall illuminate the entire interior of the building, with particular emphasis on the locations of any counter, safe, storage area and any location where people are prone to congregate. The lighting must be of sufficient brightness to ensure that the interior is readily visible from the exterior of the building from a distance of one hundred (100) feet.
12. Provide security guards at the main entrances and exits during all hours of operation. For the purposes of this Section, "security guard" shall mean licensed and duly bonded security personnel registered pursuant to ARIZ. REV. STAT. § 32-2601 *et seq.* Prior to opening for business, the marijuana establishment shall provide all property owners within a five hundred (500) foot radius of the marijuana establishment with written notification via first class U.S. Mail of the security company responsible for providing its security services.
13. Have an exterior appearance compatible with commercial structures already constructed or under construction within the immediate neighborhood to insure against blight, deterioration, or substantial diminishment or impairment of property values in the vicinity.

14. Allow unrestricted access by City code enforcement officers, police officers or other agents or employees of the City requesting admission for the purpose of determining compliance with these standards.
 15. Not display signs, or any other advertising matter used in connection with the marijuana establishment of any offensive nature and such signs shall in no way be contrary to the City code, or obstruct the view of the interior of the premises viewed from the outside.
 16. Comply with all other applicable property development and design standards of the City.
- D. To ensure that the operations of marijuana establishments are in compliance with Arizona law and to mitigate the adverse secondary effects from operations of marijuana establishments, marijuana establishments shall operate in compliance with the following standards:
1. There shall be no on-site sales of alcohol, tobacco or food, other than food products containing infused marijuana. There shall be no on-site consumption of food, alcohol, tobacco or marijuana; provided that employees may consume food on-site so long as it does not contain infused marijuana.
 2. Marijuana establishments shall not provide marijuana to any individual in an amount in violation of state law and regulations related to marijuana establishments.
 3. Marijuana establishments shall not store more than two hundred dollars (\$200) in cash overnight on the premises.
 4. Marijuana establishments shall post notice that you are required to be 21 years of age or older to purchase marijuana.
 5. Marijuana establishments shall provide law enforcement and all interested neighbors with the name and phone number of an on-site community relations staff person to notify if there are operational problems with the establishment.

RESOLUTION NO. 1005-121

A RESOLUTION OF THE COUNCIL OF THE CITY OF AVONDALE, ARIZONA, DECLARING AS A PUBLIC RECORD THAT CERTAIN DOCUMENT FILED WITH THE CITY CLERK AND ENTITLED THE “CITY OF AVONDALE MARIJUANA USES REGULATIONS” AND DECLARING AN EMERGENCY.

BE IT RESOLVED BY THE COUNCIL OF THE CITY OF AVONDALE as follows:

SECTION 1. That certain document entitled the “City of Avondale Marijuana Uses Regulations” of which one electronic copy and one paper copy is on file in the office of the City Clerk and open for public inspection during normal business hours, is hereby declared to be a public record and said copies are ordered to remain on file with the City Clerk.

SECTION 2. The City Fee Schedule is hereby adopted to include a \$460 application fee for the zoning review related to a marijuana establishment.

SECTION 3. The immediate operation of this Resolution is necessary to preserve public peace, health and safety by ensuring that recreational marijuana regulations are enacted in accordance with applicable law; therefore, an emergency is hereby declared to exist. This Resolution shall be in full force and effect from and after its passage and approval by the City Council as required by law, and this Resolution is hereby exempt from the referendum provisions of the constitution and laws of the State of Arizona.

PASSED AND ADOPTED by the Council of the City of Avondale, Arizona, January 19, 2021.

Kenneth N. Weise, Mayor

ATTEST:

Marcella Carrillo, City Clerk

APPROVED AS TO FORM:

Nicholle Harris, City Attorney

ORDINANCE NO. 2007-0121

AN ORDINANCE OF THE COUNCIL OF THE CITY OF AVONDALE, ARIZONA, AMENDING THE CITY OF AVONDALE ZONING ORDINANCE REGARDING ADOPTING REASONABLE REGULATIONS WITH RESPECT TO THE USE OF LAND FOR RECREATIONAL MARIJUANA AND RELATED USES; AND AMENDING SECTIONS 1 AND 13 THEREOF AS NECESSARY TO INCORPORATE SUCH REGULATIONS AND DECLARING AN EMERGENCY.

WHEREAS, Proposition 207, the Smart and Safe Arizona Act, appeared on the November 3, 2020 statewide ballot and, as approved by the voters, provides for recreational marijuana possession, consumption, purchase, processing, manufacturing, sale and cultivation and includes a dual license for medical marijuana dispensary to sale recreational marijuana in the State of Arizona; and

WHEREAS, the Federal Controlled Substances Act and applicable regulations classify marijuana as a “Schedule I” drug and consequently prohibit its possession for use in any manner, with exceptions only for research purposes; and

WHEREAS, medical marijuana dispensaries can operate within a municipality and the current City of Avondale Zoning Ordinance (the “Zoning Ordinance”) does not specifically address or regulate establishment, location or operation of recreational marijuana facilities which, pursuant to Section 13 of the Zoning Ordinance, results in a complete ban on recreational marijuana sales; and

WHEREAS, Proposition 207 expressly authorizes cities to enact reasonable zoning regulations to limit the use of land for recreational marijuana facilities to existing nonprofit medical marijuana dispensaries; and

WHEREAS, Arizona law permits cities to enact zoning regulations in order to conserve and promote the public health, safety and general welfare and regulate the use of buildings, structures and land; and

WHEREAS, it is necessary to restrict, or prohibit, the use or division of real property within the City of Avondale in order to protect the public’s health by establishing appropriate regulation of recreational marijuana establishments and testing facilities; and

WHEREAS, regulations defining permitted location of medical marijuana dispensaries and marijuana establishments (collectively referred to here as “Facilities”) and providing for the

minimum separation of such Facilities from uses such as churches, libraries, schools, parks, day care centers, licensed treatment centers, and other Facilities will reduce or eliminate the threat to public health, safety and welfare potentially caused by marijuana use; and

WHEREAS, the regulations, limitations and prohibitions established in this Ordinance are necessary to protect and preserve the public's health and safety; and

WHEREAS, all due and proper notices of public hearings on this Ordinance held before the City of Avondale Planning and Zoning Commission (the "Commission") and the Council of the City of Avondale (the "City Council") were given in the time, form, substance and manner provided by ARIZ. REV. STAT. § 9-462.04; and

WHEREAS, the Commission held a public hearing on this Ordinance on December 16, 2020, after which the Commission recommended to the City Council that this Ordinance be approved; and

WHEREAS, the City Council held an additional public hearing on this Ordinance on January 19, 2021.

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF AVONDALE as follows:

SECTION 1. The recitals set forth above are hereby incorporated as if fully set forth herein.

SECTION 2. The City of Avondale Zoning Ordinance (the "Zoning Ordinance"), Section 102, Definitions, is hereby amended as follows:

...

"MARIJUANA ESTABLISHMENT" MEANS AN ENTITY LICENSED BY THE ARIZONA DEPARTMENT OF HEALTH SERVICES TO OPERATE ALL OF THE FOLLOWING:

1. A SINGLE RETAIL LOCATION AT WHICH THE LICENSEE MAY SELL MARIJUANA AND MARIJUANA PRODUCTS TO CONSUMERS, CULTIVATE MARIJUANA AND MANUFACTURE MARIJUANA PRODUCTS.

2. A SINGLE OFF-SITE CULTIVATION LOCATION AT WHICH THE LICENSEE MAY CULTIVATE MARIJUANA, PROCESS MARIJUANA AND MANUFACTURE MARIJUANA PRODUCTS, BUT FROM WHICH MARIJUANA AND MARIJUANA PRODUCTS MAY NOT BE TRANSFERRED OR SOLD TO CONSUMERS.

3. A SINGLE OFF-SITE LOCATION AT WHICH THE LICENSEE MAY MANUFACTURE MARIJUANA AND MARIJUANA PRODUCTS AND PACKAGE AND STORE MARIJUANA AND MARIJUANA PRODUCTS, BUT FROM WHICH

MARIJUANA AND MARIJUANA PRODUCTS MAY NOT BE TRANSFERRED OR SOLD TO CONSUMERS.

MARIJUANA ESTABLISHMENTS SHALL NOT INCLUDE MARIJUANA TESTING FACILITIES AS DEFINED IN ARIZ. REV. STAT. § 36-2850.

...

~~“Medical marijuana cultivation location” means any of the following: (A) a medical marijuana dispensary at which cultivation occurs for sale at that medical marijuana dispensary, (B) the one additional location, if any, duly identified pursuant to ARIZ. REV. STAT. § 36-2806(E) during the process of registering a medical marijuana dispensary, where marijuana will be cultivated for sale at a medical marijuana dispensary, (C) any location identified pursuant to ARIZ. REV. STAT. § 36-2804.02(A)(3)(f) for cultivation of medical marijuana by a designated caregiver or qualifying patient (as defined in ARIZ. REV. STAT. § 36-2801, as amended) for a qualifying patient’s medical use or (D) a facility that incorporates or processes medical marijuana into a consumable or edible product.~~

...

SECTION 3. That certain document known as the “City of Avondale Marijuana Uses Regulations” (the “Regulations”) of which one electronic copy and one paper copy are on file in the office of the City Clerk, which document was made a public record by Resolution No. 1005-0121 of the City of Avondale, Arizona, is hereby referred to, adopted and made a part hereof as if fully set out in this Ordinance.

SECTION 4. The Zoning Ordinance is hereby amended by renaming Section 13 thereof to “Marijuana Uses,” and inserting therein the text of the Regulations adopted herein by reference.

SECTION 5. If any section, subsection, sentence, clause, phrase or portion of this Ordinance or any part of the Regulations adopted herein by reference is for any reason to be held invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions thereof.

SECTION 6. The immediate operation of this Ordinance is necessary to preserve public peace, health and safety by ensuring that recreational marijuana regulations are enacted in accordance with applicable law; therefore, an emergency is hereby declared to exist. This Ordinance shall be in full force and effect from and after its passage and approval by the City Council as required by law, and this Ordinance is hereby exempt from the referendum provisions of the constitution and laws of the State of Arizona.

SECTION 7. The Mayor, the City Manager, the City Clerk and the City Attorney are hereby authorized and directed to execute all documents and take all steps necessary to carry out the purpose and intent of this Ordinance.

[SIGNATURES ON FOLLOWING PAGE]

PASSED AND ADOPTED by the Council of the City of Avondale, Arizona
January 19, 2021.

Kenneth N. Weise, Mayor

ATTEST:

Marcella Carrillo, City Clerk

APPROVED AS TO FORM:

Nicholle Harris, City Attorney

CITY COUNCIL REPORT

SUBJECT: Fulton Homes Acclaim - Preliminary Plat - 99th Avenue and Thomas Road - Application PL-20-0198

MEETING DATE: 1/19/2021

TO: Mayor and Council

FROM: Kevin Murphy, Development & Engineering Services Director, (623) 333-4011

THROUGH: Tracy Stevens, Deputy City Manager, (623) 333-1014

REVIEWED: Charles A. Montoya, City Manager, (623) 333-1016

PURPOSE:

City Council will consider a request by Mr. Josh Hannon, EPS Group, Inc., for approval of a Preliminary Plat for Fulton Homes Acclaim, a proposed 581-lot single-family residential subdivision on approximately 153.20 gross acres at the northwest corner of 99th Avenue and Thomas Road. The Council will take appropriate action.

BACKGROUND:

The 153.20 gross acre subject property (Exhibits A and B) is located at the northwest corner of 99th Avenue and Thomas Road.

The site was annexed as part of a larger 470-acre annexation in October 1989 and was assigned Agricultural (AG) zoning with that annexation. In January 2001, the property was rezoned from AG to Community Commercial (C-2). The property was rezoned again to Fulton Homes Acclaim Planned Area Development (PAD) by City Council action in October 2020. The approved Fulton Homes Acclaim PAD plans for 581 single-family lots at 4.0 dwelling units per acre and approximately 25 percent open space on the 153.20 gross acre site.

The property is designated Medium Density Residential (MDR) on the General Plan 2030 Land Use Map. The MDR designation allows for residential development with densities ranging from 2.5 to 4.0 single-family dwelling units per acre, with a target density of 2.5 dwelling units per acre. The approved Fulton Homes Acclaim PAD zoning is in conformance with the MDR designation.

The existing uses and zoning of surrounding properties include:

- **North of the Osborn Road alignment:** Parkside Planned Area Development (PAD), a master planned 155-acre residential, mixed use, and office development with 662 single-family lots, 21.33 acres of Mixed Use, and 10.0 acres of planned Office adjacent to the Osborn Road alignment on the east end of the project.
- **East of 99th Avenue:** An undeveloped 141.42-acre property located in City of Phoenix's jurisdiction.

The property is zoned Planned Unit Development – Mixed Use which allows for a combination of residential, commercial, and retail uses. The property is currently being farmed and a time frame for development is unknown.

- **South of Thomas Road:** A 68.5-acre property zoned Agricultural (AG) with a Special Use District (SUD) overlay for the Holy Cross Cemetery and Mortuary use, which occupies the site.
- **West:** Glenarm Farms, a 149-acre single-family residential development zoned RR-18 (Rural Residential, minimum 18,000 square foot lot area). The community is fully developed with 150 lots, many with accessory structures for the keeping of horses and livestock.

SUMMARY OF REQUEST:

The applicant is requesting approval of a Preliminary Plat for Fulton Homes Acclaim (Exhibit E). In conformance with the Fulton Homes Acclaim PAD, the proposed Preliminary Plat (Exhibit F) divides the site into 581 single-family residential lots consisting of three (3) lot types, as follows:

- 224 single-family lots with a minimum area of 4,140 square feet, featuring minimum widths of 45 feet and minimum depths of 92 feet.
- 241 single-family lots with a minimum area of 6,000 square feet, featuring minimum widths of 50 feet and minimum depths of 120 feet.
- 116 single-family lots with a minimum area of 7,500 square feet, featuring minimum widths of 60 feet and minimum depths of 125 feet.

The developer will be responsible for the installation of twelve (12) additional feet of paving along 99th Avenue, including a right turn lane at Thomas Road and restriping southbound 99th Avenue to a 5-lane section adjacent to the project. Additional off-site improvements include deceleration turn lanes into the development from both 99th Avenue and Thomas Road, undergrounding the SRP irrigation canal along 99th Avenue through the Thomas Road intersection, and installing sidewalks and landscaping along 99th Avenue and Thomas Road. All off-site improvements will be completed within the first phase of development.

The Fulton Homes Acclaim development will have two entrances, one off Thomas Road to the south, and one off 99th Avenue to the east. The new entrances will have landscaped medians and connect with the interior local road network branching off from the central park, which will be the focal point of the community.

A Landscape, Wall, and Open Space Plan is provided as part of the application (Exhibit G). There is 35.34 acres of open space, including the community's central park with a neighborhood pool, three (3) pocket parks, 11.5-acre linear park on the western edge of the site, and trail system, which is approximately 24.1 percent of the net site area.

In addition to open space tracts, the Preliminary Plat establishes Tracts NN and OO, to accommodate development of a future SRP well site in the southeast corner of the site and a sewer lift station in the southwest corner of the site, respectively.

Walls and monumentation match the approved Fulton Homes Acclaim PAD. Decorative, earth toned, split face masonry theme walls featuring a Sonora Cap and Founders Finish accent panels will be provided along all streets and in all locations where walls are visible from publicly accessible areas.

PUBLIC PARTICIPATION:

Preliminary Plats are not public hearing items; thus, no public notifications are required. However, as is the City's policy, all property owners within 1,000 feet of the project boundaries were notified that the proposed

development was in for City review. No residents have contacted Staff regarding the proposed Preliminary Plat.

CERTIFICATE OF ADEQUATE SCHOOL FACILITIES:

The property is in the service areas of the Pendergast Elementary School District (PESD) and the Tolleson Union High School District (TUHSD). Both PESD and TUHSD have provided the City with signed certificates stating that each district has adequate school facilities to accommodate the estimated enrollment of new students to be generated by the proposed development (Exhibit H).

PLANNING COMMISSION ACTION:

Planning Commission reviewed the proposed Preliminary Plat on December 16, 2020 and voted 5-0 to recommend approval of the request subject to the four (4) Staff recommended conditions. The Commission had no comments or questions on the proposal.

ANALYSIS:

The proposed Fulton Homes Acclaim Preliminary Plat and Landscape, Wall, and Open Space Plan are in conformance with the Fulton Homes Acclaim PAD, as well as the City's Subdivision Ordinance, Zoning Ordinance, and Single-Family Residential Design Manual. The proposed 581-lot single-family residential subdivision consisting of three (3) lot types adheres to the requirements of the approved PAD and will result in development of a community consistent with the desired character for development in the General Plan's Medium Density Residential land use category. Open space and amenities within the overall Fulton Homes Acclaim community exceed requirements and will offer future residents of all ages a range of recreational options in proximity to their homes. Monument signs and walls are consistent with the approved PAD.

Floor plans and elevations for single-family house products in the development will require City administrative approval. As with all new residential development, the City will expect any proposed housing product to meet all requirements of the City's Single-Family Residential Design Manual to reduce garage dominance and create visually interesting streetscapes.

DISCUSSION:

Staff recommends approval of this application for the following reasons:

- The proposed Fulton Homes Acclaim Preliminary Plat, including the Landscape, Wall, and Open Space Plan, are in conformance with the approved Fulton Homes Acclaim PAD.
- The proposed Fulton Homes Acclaim Preliminary Plat, including the Landscape, Wall, and Open Space Plan, meet or exceed requirements within the City of Avondale Zoning Ordinance, Subdivision Regulations, and Single-Family Residential Design Manual.
- Through provision of a community pool and a wide range of other amenities the proposal achieves City objectives related to provision of open space, trails, and parks.

STRATEGIC PLAN:

INITIATIVE: Foster sustainable community development

- STRATEGIC GOAL: Encourage build-out in residential housing opportunities that support diverse housing options.
- STRATEGIC GOAL: Maintain and expand quality infrastructure and improve connectivity to City amenities.

BUDGET IMPACT:

No budget impacts.

RECOMMENDATION:

No public hearing is required. City Council will **APPROVE** Application PL-20-0198 Fulton Homes Acclaim, a request for Preliminary Plat approval for the proposed 581-lot Fulton Homes Acclaim single-family residential subdivision, subject to the following four (4) conditions of approval:

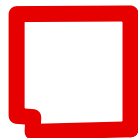
1. Development of Fulton Homes Acclaim shall conform to the following documents, except as modified by these conditions of approval:
 - a. Preliminary Plat Narrative, date stamped November 30, 2020
 - b. Preliminary Plat, date stamped November 24, 2020
 - c. Landscape, Wall, and Open Space Plan, date stamped November 24, 2020
 - d. Preliminary Civil Plans, date stamped November 9, 2020
2. In accordance with the City of Avondale Subdivision Regulations, approval of the Preliminary Plat shall expire in two (2) years from the date of approval unless a Final Plat has been approved and recorded.
3. Development shall be completed in accordance with the City of Avondale General Engineering Requirements (GER) Manual and the City of Avondale Supplement to the MAG Uniform Standard Specifications and Details.
4. Development shall occur in accordance with the approved PAD, including any amendments thereto. Off-site improvements must be completed by the developer as stipulated with zoning approval.

PROPOSED MOTION:

I move that City Council **APPROVE** Application PL-20-0198 Fulton Homes Acclaim, a request for Preliminary Plat approval for the proposed 581-lot Fulton Homes Acclaim single-family residential subdivision, subject to four (4) recommended conditions of approval as listed in the staff report.

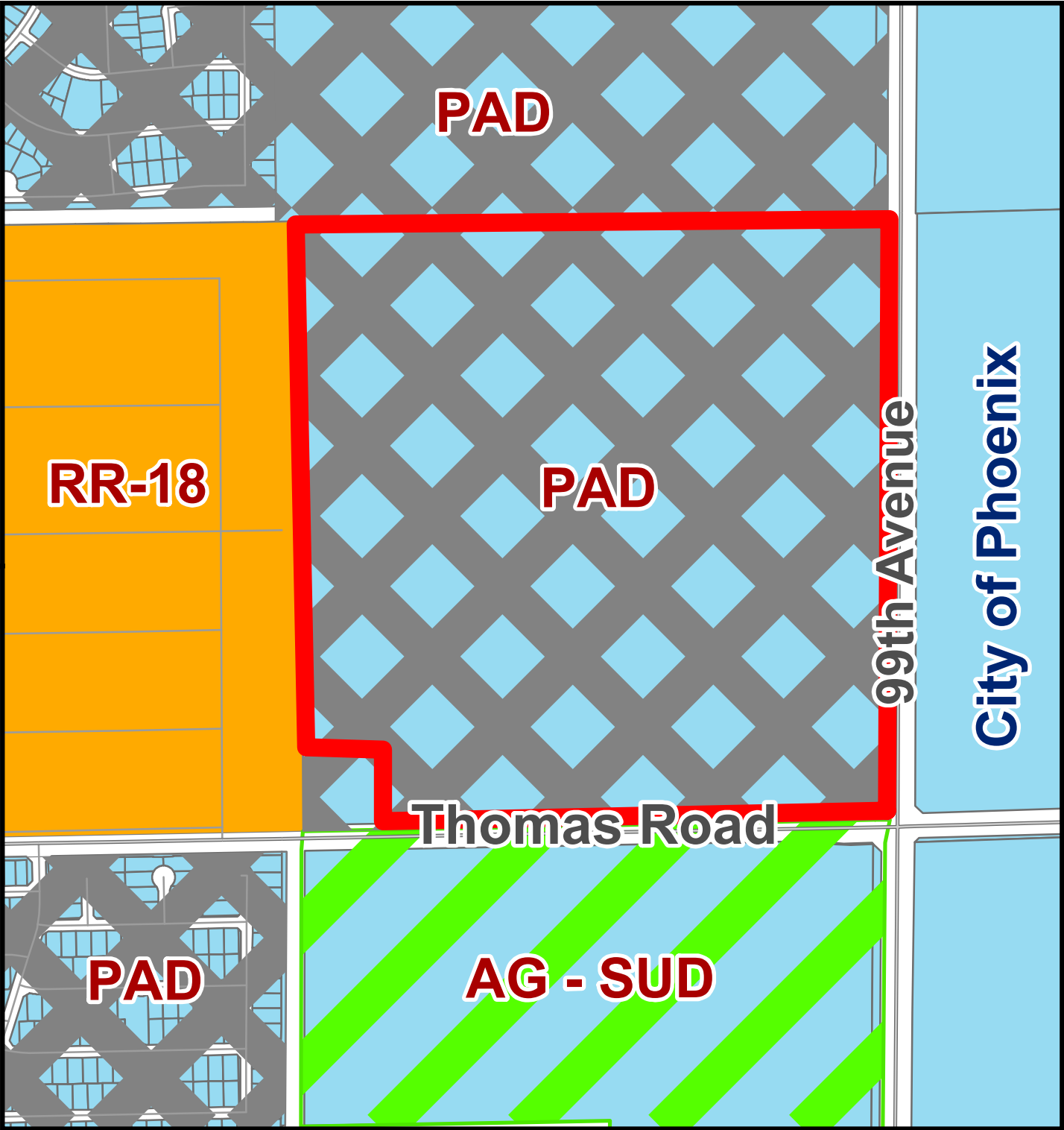


Aerial Photograph

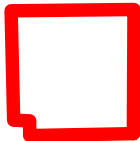


Subject Property



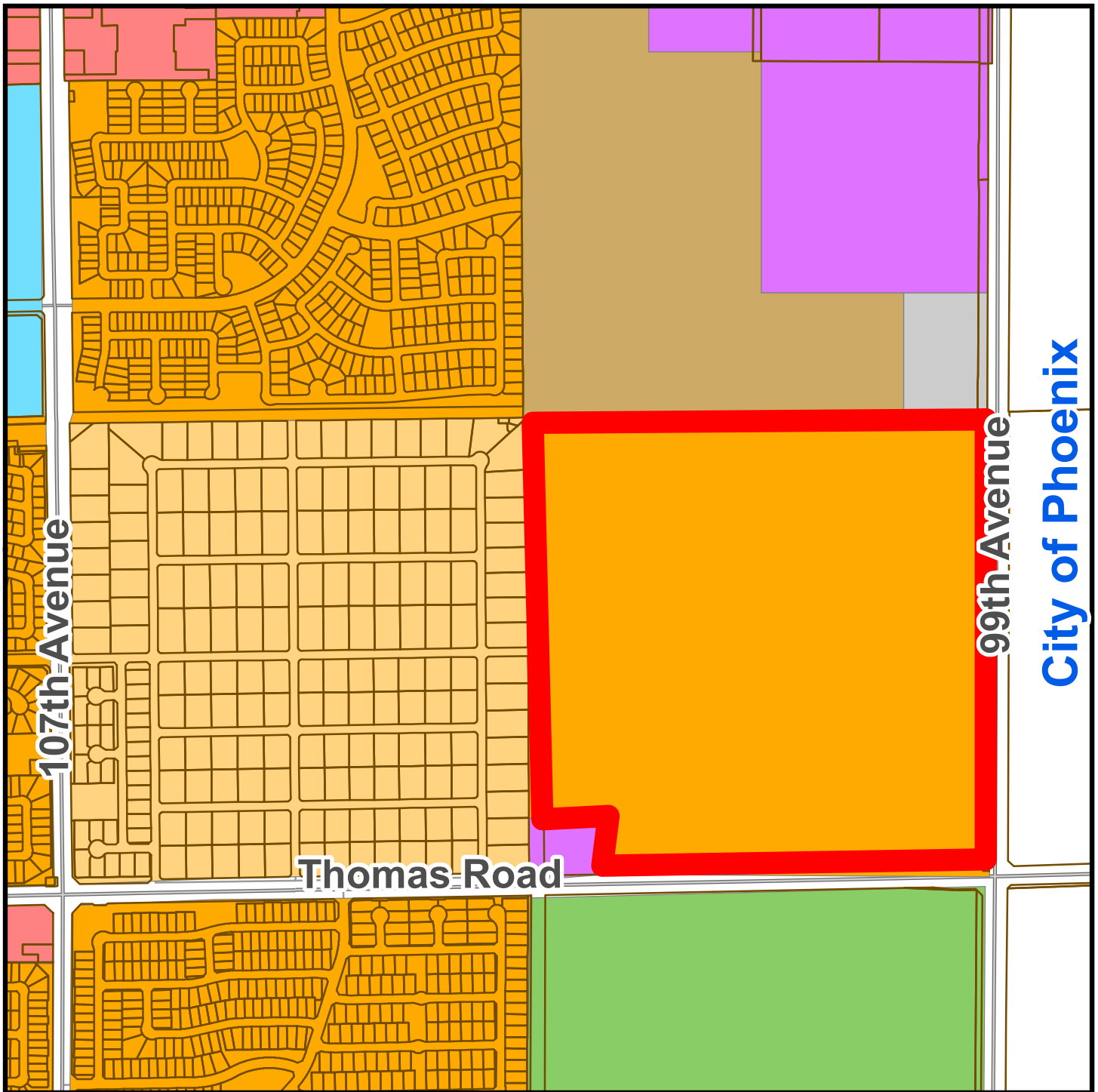


Zoning Vicinity Map



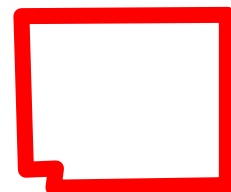
Subject Property





General Plan Land Use Map

- | | |
|---|--|
|  Local Commercial |  Office/Professional |
|  Estate/Low Density Residential |  Mixed Use |
|  Medium Density Residential |  Open Space and Parks |
|  Medium/High Density Residential | |



Subject Property

SUMMARY OF RELATED FACTS

APPLICATION PL-20-0198

THE PROPERTY	
PARCEL SIZE	Approximately 153.20 gross acres
LOCATION	Northwest corner of 99 th Avenue and Thomas Road
PHYSICAL CHARACTERISTICS	The rectangular site is relatively flat, sloping generally east to west with a Roosevelt Irrigation District (RID) canal bounding the property to the west. East of the RID Canal a portion of the project is encumbered by FEMA designated floodplain area; the applicant is addressing the condition through a CLOMR process with the City's assistance. Above-ground utilities, including power lines and a Salt River Project (SRP) lateral canal run along the property's 99th Avenue frontage. There is an existing SRP well site at the southeast corner of the site, which will be relocated with a future City CIP project when 99th Avenue is widened to its ultimate section. Additionally, SRP owns a 2.5-acre parcel southwest of the subject site.
EXISTING LAND USE	The entire site is currently used for agricultural production.
EXISTING ZONING	Fulton Homes Acclaim Planned Area Development (PAD).
ZONING HISTORY	The site was annexed as part of a larger 470-acre annexation in October 1989 and was assigned Agricultural (AG) zoning with that annexation. In January 2001, the property was rezoned from AG to C-2. In October 2020, the property was rezoned to Fulton Homes Acclaim PAD with a concurrent Major General Plan Amendment change to Medium Density Residential.

SURROUNDING ZONING AND LAND USE	
NORTH OF THE OSBORN ROAD ALIGNMENT	Parkside PAD, a master planned 155-acre residential, mixed use, and office development with 662 single-family lots, 21.33 acres of Mixed Use, and 10.0 acres of planned Office adjacent to the Osborn Road alignment on the east end of the project.
EAST OF 99 TH AVENUE	An undeveloped 141.42-acre property located in City of Phoenix's jurisdiction. The property is zoned Planned Unit Development – Mixed Use which allows for a combination of residential, commercial and retail uses. The property is current being farmed and a time frame for development is unknown.
SOUTH OF THOMAS ROAD	A 68.5-acre property zoned Agricultural (AG) with a Special Use District (SUD) overlay for the Holy Cross Cemetery and Mortuary use, which occupies the site.
WEST	Glenarm Farms, a 149-acre single-family development zoned RR-18 (Rural Residential, minimum 18,000 square foot lot area). The community is fully developed with 150 lots, many with accessory structures for the keeping of horses and livestock.

GENERAL PLAN	
The property is designated Medium Density Residential (MDR), which allows for the development of detached single-family residential development at a density of 2.5 to 4.0 dwelling units per acre.	

<i>PUBLIC SCHOOLS</i>	
SCHOOL DISTRICT(S)	Pendergast Elementary School District Tolleson Union High School District
ELEMENTARY SCHOOL	Pendergast Elementary School
HIGH SCHOOL	Westview High School

<i>ADJACENT STREETS</i>	
99th Avenue	
Classification	Arterial
Existing half-street ROW	55 feet
Standard half-street ROW	70 feet
Existing half-street improvements	Two (2) travel lanes and half-center turn lane
Standard half-street improvements	Three (3) travel lanes, deceleration lane (when warranted), half landscaped median, bike lane, sidewalk, curb, gutter, street lights, landscaping, and undergrounding of above-ground utilities and irrigation channels.
Thomas Road	
Classification	Arterial
Existing full-street ROW	55 feet
Standard full-street ROW	55 feet
Existing full-street improvements	Two (2) travel lanes, dedicated left-turn lane, curb, gutter, and median landscaping
Standard full-street improvements	Two (2) travel lanes, dedicated left-turn lane, sidewalk, curb, gutter, median and back of sidewalk landscaping, street lights.

<i>UTILITIES</i>
Future development on the site will access existing 16-inch water line in Thomas Avenue. Sewer service to the site will be accommodated by an existing 12-inch main line in Thomas Road. Salt River Project (SRP) provides electrical service in this portion of the City.

Exhibit E

Preliminary Plat Narrative

November 30, 2020

FULTON HOMES ACCLAIM

PRELIMINARY PLAT
PROJECT NARRATIVE

Developer:

Fulton Homes
9140 S Kyrene, Ste 202
Tempe, AZ 85284
Tel: 480-753-6789
Contact: Norm Nicholls

Consultant:

EPS Group, Inc.
1130 N Alma School Road, Suite 120
Mesa, AZ 85201
Tel: 480-503-2250
Contact: Brian Nicholls

Introduction

EPS Group, on behalf of Fulton Homes, is requesting approval of a Preliminary Plat of the vacant, infill parcel located at the northwest corner of 99th Avenue and Thomas Road (the "Property") to accommodate the development of a single family residential, master planned community called Fulton Homes Acclaim. The Property is 153.20 gross acres and 146.34 net acres, when adjusted to account for a dedication of 37 additional feet of right of way for 99th Avenue. The County Assessor identifies the Property as Maricopa County Assessor Parcel Number 102-27-007N.

Community Design

Fulton Homes Acclaim will include a variety of single-family home options, with proposed lot sizes ranging from 45-foot-wide, 4,100 square foot lots up to 60-foot-wide, 7,400 square foot, executive-home size lots. Fulton Homes intends to develop a total of 581 individual home sites on the Property, with an overall project density of 4.0 du/ac.

In addition, Fulton Homes intends to develop Fulton Homes Acclaim consistent with the Planned Area Development for Fulton Homes Acclaim (PL-20-0086) and the City's Single-Family Residential Design Manual, as suggested by Sections 602.E and 604.F., G., and H. of the Zoning Ordinance.

Pedestrian Connectivity

Fulton Homes Acclaim is indeed designed to be a community that welcomes pedestrians and has designed an abundant and well-connected open space system that is easily accessible to its residents. Every resident of the community will be well within a quarter mile of at least one active open space area of the PAD, and most are within a quarter mile of multiple amenity areas. To link the homes to the open spaces, the entirety of the Fulton Homes Acclaim open space areas are linked by a network of pedestrian trails.

Open Space Amenities

Fulton Homes Acclaim is setting aside 35.34-acres (24.1% of net area) of Open Space. As a result, this community will have an abundant range of highly amenitized, active and passive recreational opportunities, dwarfing the City's requirement for 15% open space in a PAD.

The Landscape Plan reflects a large central park site, including a substantial aquatic center, to serve the entirety of the community, as well as additional local parks within each of the various smaller

neighborhoods, all linked by an extensive pedestrian trail system. In addition to these amenities, there is a large drainage area adjacent to the Roosevelt Irrigation District (RID) Canal that is located along the western perimeter of the Property, which Fulton Homes will transform into a significant area of open space, amenities, and trails.

Architectural Concept for Walls and Homes

Walls

The Fulton Homes Acclaim wall program also advances a unifying theme. The walls are intentionally designed to disappear into the background of the landscaping, open spaces, and pedestrian walkways. Along 99th Avenue, in addition to the project entry and the two added pedestrian access points, Fulton Homes Acclaim has two separate runs of split rail fencing, with a unique, partially rotated rail design. In four separate locations of the interior pedestrian walkways linking open spaces, Fulton Homes Acclaim provides partial view fencing. Along most of the project perimeter, the walls are pulled back and separated from the property line by landscaping and open space. The walls themselves generally feature a Sonoran fluted cap and a smooth banded color line just below the cap to create and emphasize a unique shadow line over the rich split-face masonry block wall, creating a consistent and understated thematic design.

Homes

Fulton Homes is introducing three series of distinctive home designs envisioned to provide quality homes that offer unique and desirable lifestyles sought by today's home buyers and are offering 4 distinct architectural characters that reflect a regional identity. These architectural characters are available in all 3 of the home series and with every floor plan. These historic characters provide our buyers a wide selection of appealing exteriors while reinforcing a diverse community:

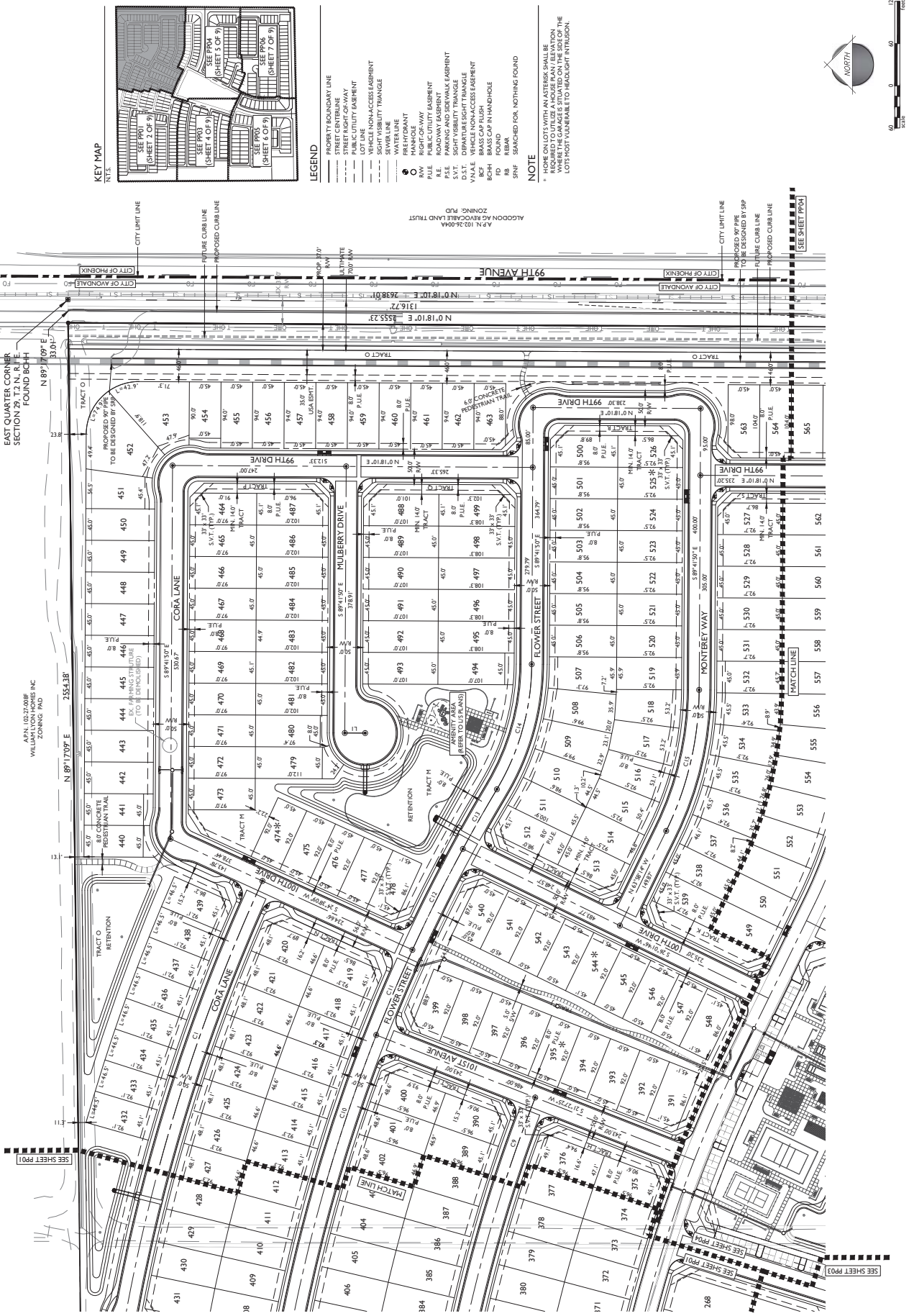
- **Spanish** - Historic to this region, it is best known for its eclectic, informal and sculptural appearance. This style has predominately hipped and gabled roofs with barrel style tiles and light-colored stucco walls. It is further enhanced with arches, decorative buttress walls, colorful tile accents, molding trims and tile vents.
- **Cottage** – Characterized by a more formal and crafted appearance, this style evolved from earlier picturesque manor houses. This traditional vernacular has adapted to our region through simple massings with hipped and clipped gable roofs and refined details including low arches, decorative wing walls, stone elements, molding trims, shutters, dormers and smooth flat roof tiles.
- **Farmhouse** - This western adapted style has a history in traditional country homes. This more refined version incorporates native materials while maintaining some refined features, including brick veneer, shutters and horizontal lap siding materials. It is further enhanced with porches, simple Dutch style gable roofs and dormers with flat textured roof tiles.
- **Craftsman** - Distinguished by its crafted appearance and use of natural materials, this style evolved from the early American Arts and Craft movement. This vernacular is known for its inviting front entry porches with wide columns and simple gable roofs with textured flat roof tiles, detailed with batt and board siding with outriggers. The use of river rock detailing enhances this character's charm.

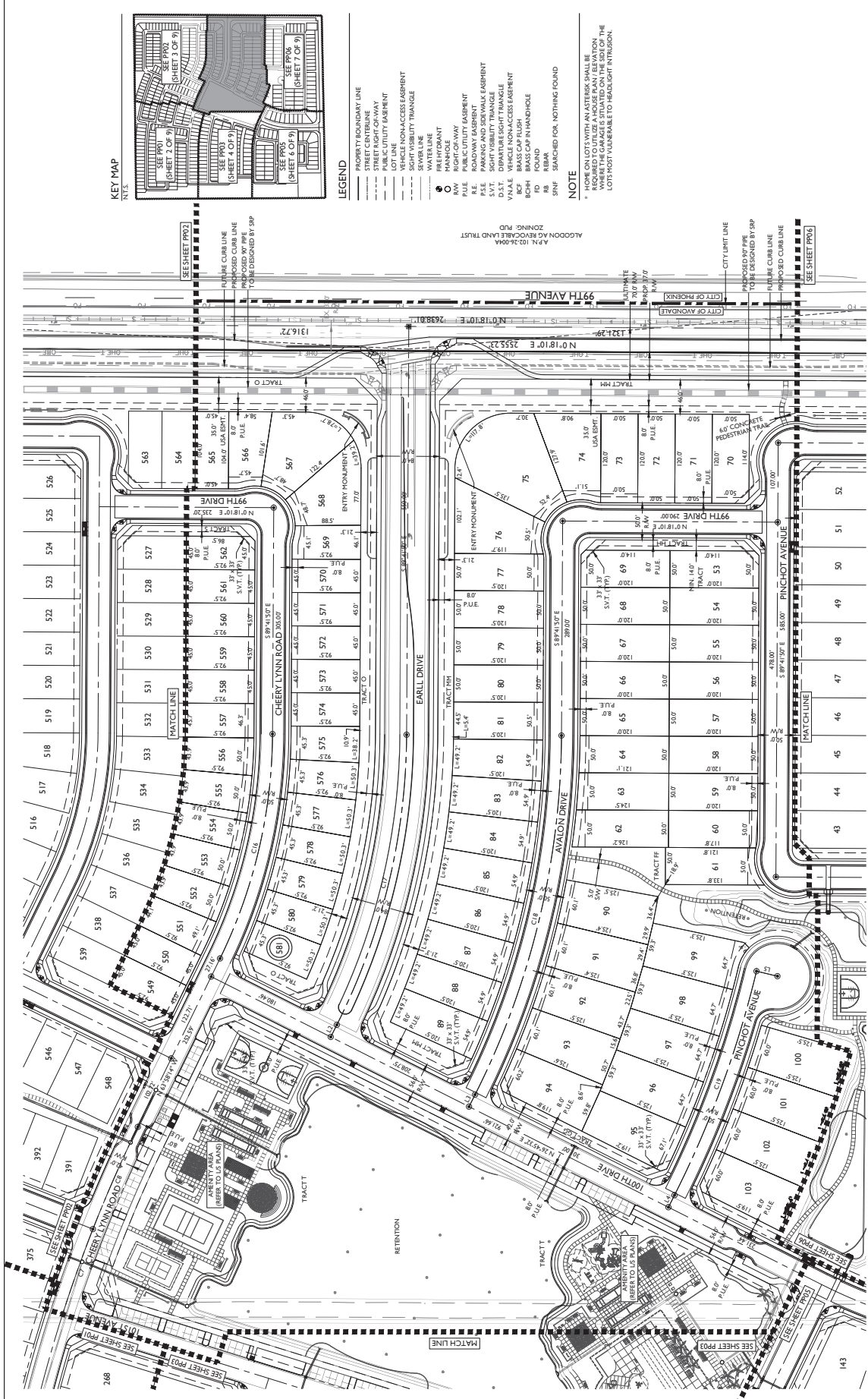
Conclusion

The development team looks forward to working with the City of Avondale on this exciting new residential community.

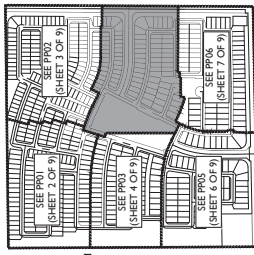
Exhibit F

Proposed Preliminary Plat





KEY MAP



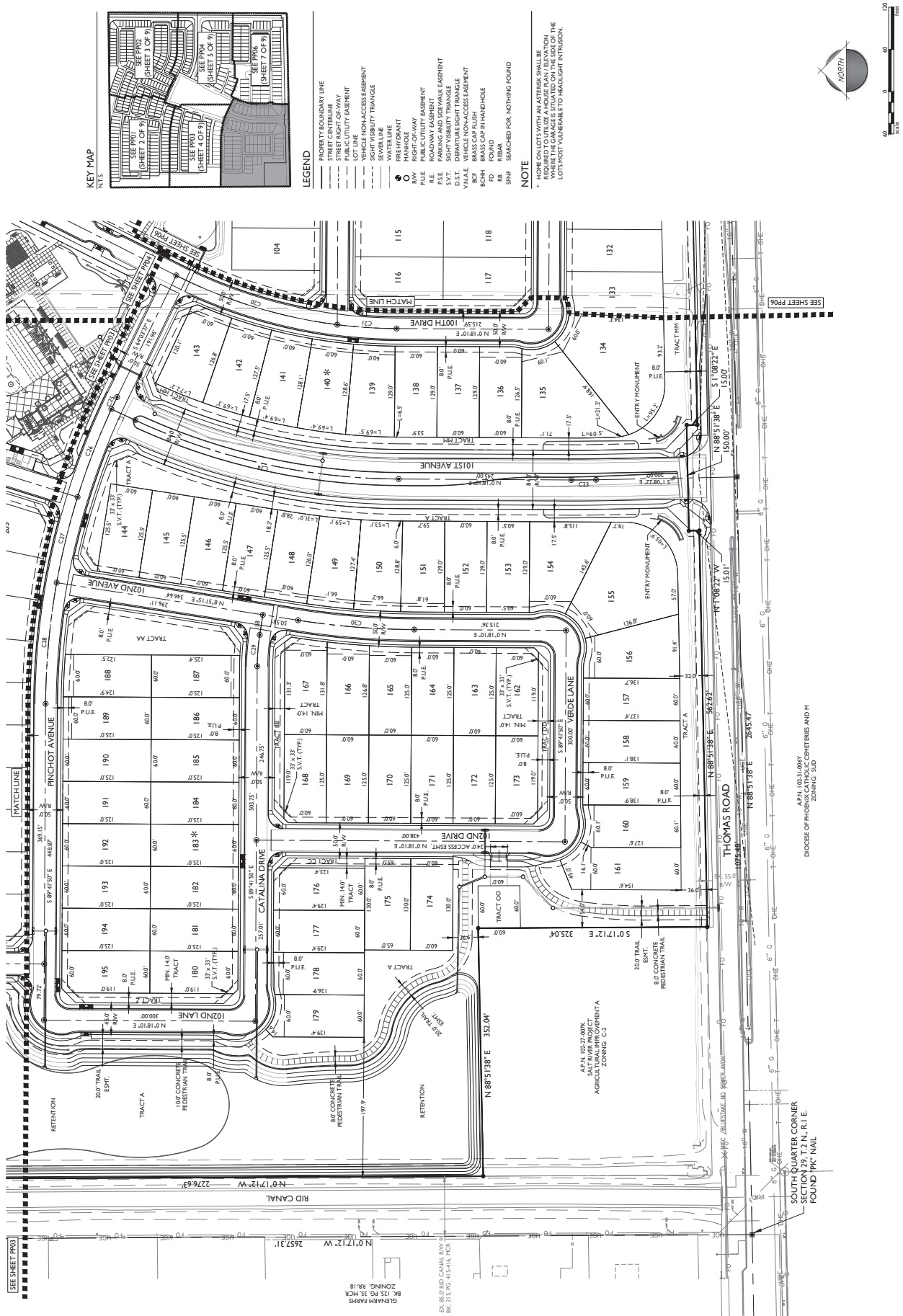
LEGEND

- PROPERTY BOUNDARY LINE
- STREET CENTRELINE
- STREET RIGHT-OF-WAY
- PUBLIC UTILITY EASEMENT
- VEHICLE NON-ACCESS EASEMENT
- SIGHT VISIBILITY TRIANGLE
- WATERLINE
- FIRE HYDRANT
- MANHOLE
- SEWER
- PUBLIC UTILITY EASEMENT
- PAVE
- ROADWAY EASEMENT
- P.L.E.
- PARKING AND SIDEWALK EASEMENT
- D.S.T.
- DIAPHRAGM EASEMENT
- V.N.A.E.
- VEHICLE NON-ACCESS EASEMENT
- B.C.F.
- BRASS CAP FLUSH
- FO
- FOUND
- REBAR
- SNF
- SEARCHED FOR NOTHING FOUND

NOTE

* HOME ON LOTS WITH AN ATTACHED SHALL BE REQUIRED TO LIFT A HOUSE RAIL ELEVATION TO BE DESIGNED BY SPP THE LOTS MOST VULNERABLE TO HEADLIGHT INTRUSION.



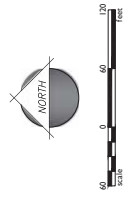
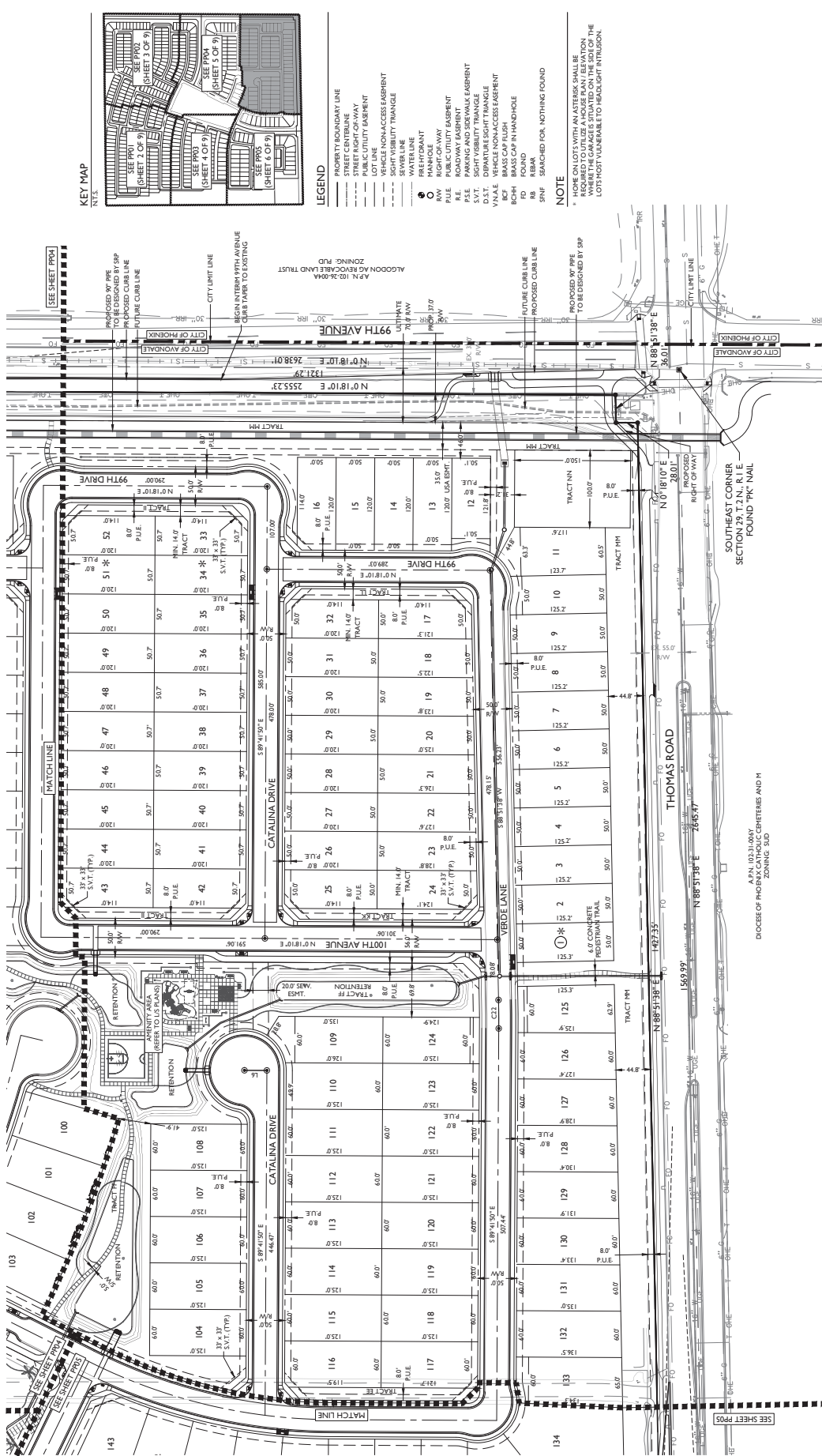


KEY MAP

LEGEND

NOTE

* HOME ON LOT'S WITH AN ASTERISK SHALL BE REQUIRED TO UTILIZE A HOUSE PLAN / ELEVATION WHERE THE GARAGE IS SITUATED ON THE SIDE OF THE



NOTE

* HOME ON LOT'S WITH AN ASTERISK SHALL BE REQUIRED TO UTILIZE A HOUSE PLAN / ELEVATION WHERE THE GARAGE IS SITUATED ON THE SIDE OF THE LOTS MOST VULNERABLE TO HEADLIGHT INTRUSION.

LEGEND

KEY MAP

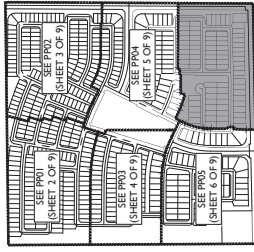




Exhibit G

Landscape, Wall, and Open Space Plan

Fulton Homes Acclaim

Avondale, Arizona

Received Electronically November 24, 2020



Preliminary Landscape Design Package

August 26, 2020
October 14, 2020
November 18, 2020

DEVELOPER:
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(480) 503-2250
Contact: Aliza Sabin, RLA LEED AP
Aliza.Sabin@epsgroupinc.com

PLANNER:
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TEL: (480) 503-2250
Contact: Josh Hannon
Josh.Hannon@epsgroupinc.com

CIVIL ENGINEER:
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Mesa, AZ 85201
TEL: (480) 503-2250
Contact: Brian Nicholls, PE
Brian.Nicholls@epsgroupinc.com

FULTON HOMES







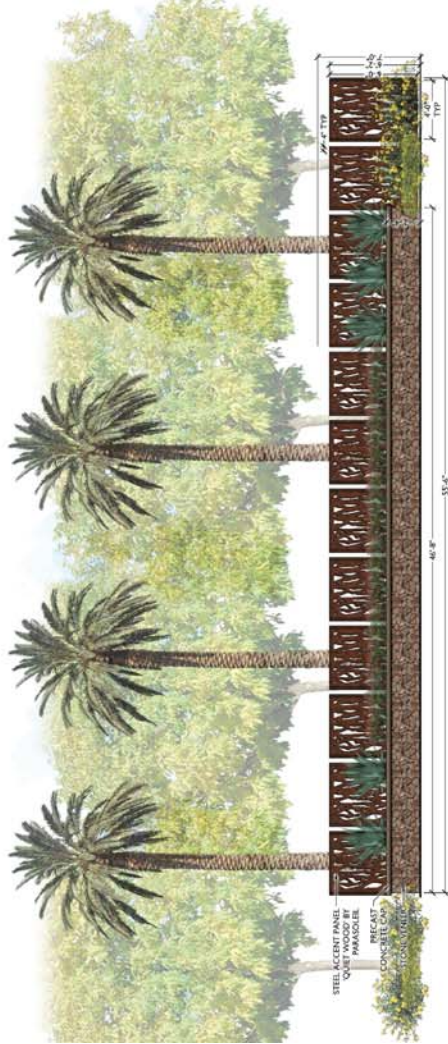
1 ENTRY MONUMENT PLAN

Scale: 1/4" = 1'-0"



3 ENTRY MONUMENT SIGN PLAN

Scale: 1/4" = 1'-0"



2 ENTRY MONUMENT ELEVATION

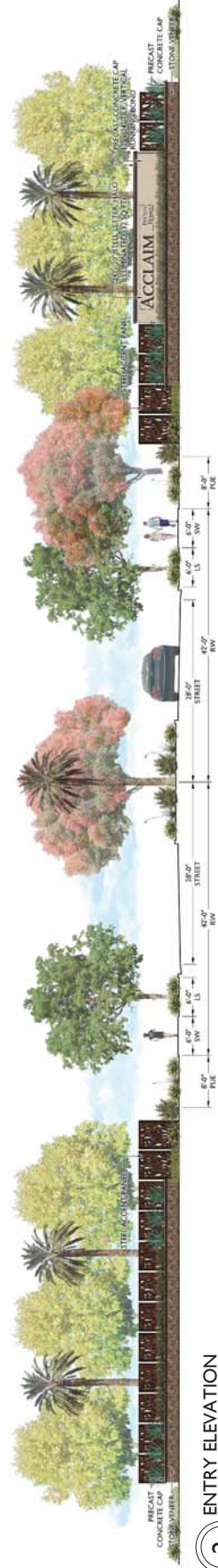
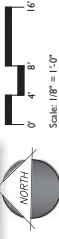
Scale: 1/4" = 1'-0"



4 ENTRY MONUMENT SIGN ELEVATION

Scale: 1/4" = 1'-0"

- 1 ENTRY MONUMENT SIGN WALL
- 2 ENTRY MONUMENT
- 3 MEDIAN PAVER



KEYNOTES

- 1 30' x 30' RAMADA
- 2 OVERLOOK PLAZA WITH RAMADA
- 3 OVERLOOK PLAZA STEPS INTO TURF
- 4 BASKETBALL COURT
- 5 SAND VOLLEYBALL COURT
- 6 PICKLEBALL COURT
- 7 BOCCIE BALL COURT
- 8 CORNHOLE
- 9 TRELLIS SHADE STRUCTURE

- 10 GARDEN WALL
- 11 LANDSCAPE BENCH
- 12 BBQ GRILL
- 13 TRASH RECEPTACLE
- 14 BIKE RACK
- 15 TURF FIELDS
- 16 PET WASTE STATION
- 17 PARKING



SCALE 1" = 20'-0"



PLANT LEGEND

TREES	SCIENTIFIC NAME	COMMON NAME	SIZE
	<i>Acacia aneura</i>	Mulga	24" Box
	<i>Acacia saligna</i>	Wattle-ACacia	36" Box
	<i>Casipoua carduoides</i> 'Smoothie'	Thornless Casipoua	36" Box
	<i>Casipoua hanseniana</i> 'Pink Dawn'	Chickpea	24" Box
	<i>Fraxinus velutina</i> 'Tim Wreath'	Fax Wreath Ash *	24" Box
	<i>Phoraea dasylepis</i>	Dawn Palm	102 Bushes
	<i>Acacia mangium</i>	Swain Hill Oaks	36" Box
	<i>Acacia mangium</i> 'Swoon an Emerald'	Swain Hill Oaks	24" Box
	<i>Pinus edulis</i>	Pinus edulis	24" Box
	<i>Pinus x 'Red Paul'</i>	Red Paul Pinus	24" Box
	<i>Proserpinaca angustifolia</i> 'Phoenix'	Thornless Mesquite	24" Box
	<i>Quercus virginiana</i>	Live Oaks **	24" Box
	<i>Ulmus parvifolia</i>	Chinese Elm	24" Box

SHRUBS/ACCENTS

SHRUBS/ACCENTS	COMMON NAME	SIZE
①	Agave americana	5 Gal
②	Agave americana	5 Gal
③	Agave americana	5 Gal
④	Agave americana	5 Gal
⑤	Agave americana	5 Gal
⑥	Agave americana	5 Gal
⑦	Agave americana	5 Gal
⑧	Agave americana	5 Gal
⑨	Agave americana	5 Gal
⑩	Agave americana	5 Gal
⑪	Agave americana	5 Gal
⑫	Agave americana	5 Gal
⑬	Agave americana	5 Gal
⑭	Agave americana	5 Gal
⑮	Agave americana	5 Gal
⑯	Agave americana	5 Gal
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GROUND COVER

GROUND COVER	COMMON NAME	SIZE
	Carolina's moonbeam	1 Gal
	Emmings' porcelain Chubus Sunset	1 Gal
	Emmings' porcelain Chubus Sunset	1 Gal
	Luxaria monodonta	1 Gal
	Luxaria x New Gold	1 Gal
	New Gold Luxaria	1 Gal
	Roseum officinale Huntington Carpet	1 Gal
	Trailing Rosemary	1 Gal
	Yellow Dot	1 Gal
TURF & INERT MATERIALS		
	Crystalline dunlop's Material	50 lb
	3/4" Screened Decomposed Granite	

TURF & INERT MATERIALS

	Cynodon dactylon "Midiron"	Midiron Hybrid Bermuda	Sod
	3/4" Screened Decomposed Granite		



KEYNOTES

- 16 SHADED POOL AREA WITH KIDS PLAY TOYS
- 17 LAP LANE
- 18 POOL BUILDING
- 19 POOL EQUIPMENT ENCLOSURE
- 20 POOL RAMADA
- 21 SHADED TOT LOT
- 22 30' x 30' RAMADA
- 23 BOCCIE BALL COURT
- 24 CORNVOLLE
- 25 TRELLIS SHADE STRUCTURE WITH SEATING
- 26 GARDEN WALL
- 27 LANDSCAPE BENCH
- 28 BBQ GRILL
- 29 TRASH RECEPTACLE
- 30 BIKE RACK
- 31 TURF
- 32 PET WASTE STATION
- 33 PARKING
- 34 AQUATIC CENTER MONUMENT SIGN
- 35 EVENT LAWN

SCALE 1" = 20'-0"

0' 10' 20' 40'

100' NORTH

101ST AVENUE

PINCHOT AVENUE

100TH DRIVE

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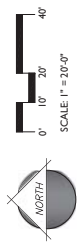


- KEYNOTES**
- 1 SHADED TOT LOT
 - 2 RAMADA (20' x 20')
 - 3 GARDEN WALL
 - 4 LANDSCAPE BENCH
 - 5 BBQ GRILL
 - 6 TRASH RECEPTACLE
 - 7 BIKE RACK
 - 8 TURF
 - 9 PET WASTE STATION

TREES	SCIENTIFIC NAME	COMMON NAME	SIZE
	Acacia senaria	Mulga	2 1/2" Box
	Acacia saligna	Willow Acacia	2 1/2" Box
	Callistemon citrinus 'Sourwood'	Thornless Callistemon	3 1/2" Box
	Callistemon citrinus 'Red Dwarf'	Thornless Callistemon	2 1/2" Box
	Callistemon citrinus 'Red Dwarf'	Thornless Callistemon	2 1/2" Box
	Callistemon citrinus 'Red Dwarf'	Thornless Callistemon	2 1/2" Box
	Callistemon citrinus 'Red Dwarf'	Thornless Callistemon	2 1/2" Box
	Callistemon citrinus 'Red Dwarf'	Thornless Callistemon	2 1/2" Box
	Callistemon citrinus 'Red Dwarf'	Thornless Callistemon	2 1/2" Box

SHRUBS/ACCENTS	COMMON NAME	SIZE
	Agave americana	5 Gal
	Agave americana	5 Gal
	Agave americana	5 Gal
	Agave americana	5 Gal
	Agave americana	5 Gal
	Agave americana	5 Gal
	Agave americana	5 Gal
	Agave americana	5 Gal
	Agave americana	5 Gal
	Agave americana	5 Gal

GROUNDCOVERS	COMMON NAME	SIZE
	Convolvulus coccineus	1 Gal
	Convolvulus coccineus	1 Gal
	Convolvulus coccineus	1 Gal
	Convolvulus coccineus	1 Gal
	Convolvulus coccineus	1 Gal
	Convolvulus coccineus	1 Gal
	Convolvulus coccineus	1 Gal
	Convolvulus coccineus	1 Gal
	Convolvulus coccineus	1 Gal
	Convolvulus coccineus	1 Gal



KEYNOTES

- 1 SHADED TOT LOT
- 2 RAMADA (20' x 20')
- 3 GARDEN WALL
- 4 LANDSCAPE BENCH
- 5 BBQ GRILL
- 6 TRASH RECEPTACLE
- 7 BIKE RACK
- 8 TURF
- 9 6' CONCRETE PATH
- 10 PET WASTE STATION
- 11 HALF BASKETBALL COURT

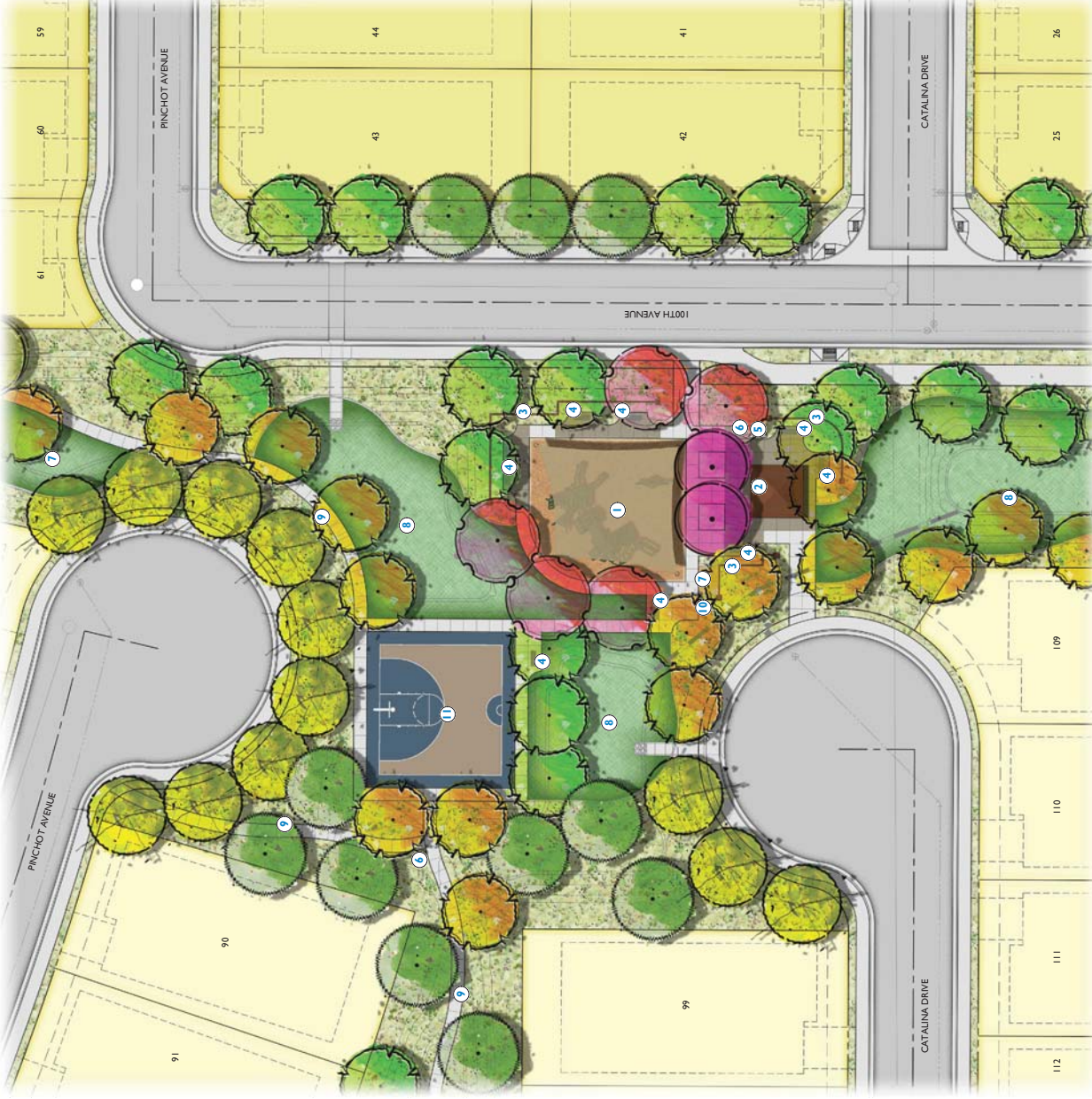
PLANT LEGEND

TREES	SCIENTIFIC NAME	COMMON NAME	SIZE
	<i>acacia</i>	Midge	24' Box
	<i>salicina</i>	Willow Azura	24' Box
	<i>rosa carolina 'Smoothie'</i>	Thornless Caroline	36' Box
	<i>a. schinifera 'Pink Dawn'</i>	Chippa ^{xx}	24' Box
	<i>i. velutina 'You Weave'</i>	Flr Weave Ash ^x	24' Box
	<i>x. densiflora</i>	Daw Palm	20' Hedge
	<i>argentea 'Snow Hill'</i>	Snow Hill Olive	36' Box
	<i>oxa x 'Storax in Emerald'</i>	Emerald Pato Verde	24' Box
	<i>laurica</i>	Normal Elm	24' Box
	<i>a. x 'Red Pur'</i>	Red Oak Patache ^{xx}	24' Box
	<i>i. hybrid 'Phoenix'</i>	Thornless Phoenix	24' Box
	<i>i. nigra</i>	Live Oak ^{xx}	24' Box
	<i>parviflora</i>	Chinese Dogwood in Elm ^{xx}	24' Box

SHRUBS/ACCENTS

SHIRUBACCENTS	COMMON NAME	SIZE
①	Agave americana	5 Gal
②	Agave americana	5 Gal
③	Two Flowered Agave	5 Gal
④	Agave hybrid Blue Bell	5 Gal
⑤	Agave hybrid Blue Bell	5 Gal
⑥	Agave hybrid Blue Bell	5 Gal
⑦	Agave hybrid Blue Bell	5 Gal
⑧	Agave hybrid Blue Bell	5 Gal
⑨	Agave hybrid Blue Bell	5 Gal
⑩	Agave hybrid Blue Bell	5 Gal
⑪	Agave hybrid Blue Bell	5 Gal
⑫	Agave hybrid Blue Bell	5 Gal
⑬	Agave hybrid Blue Bell	5 Gal
⑭	Agave hybrid Blue Bell	5 Gal
⑮	Agave hybrid Blue Bell	5 Gal
⑯	Agave hybrid Blue Bell	5 Gal
⑰	Agave hybrid Blue Bell	5 Gal
⑱	Agave hybrid Blue Bell	5 Gal
⑲	Agave hybrid Blue Bell	5 Gal
⑳	Agave hybrid Blue Bell	5 Gal
㉑	Agave hybrid Blue Bell	5 Gal
㉒	Agave hybrid Blue Bell	5 Gal
㉓	Agave hybrid Blue Bell	5 Gal
㉔	Agave hybrid Blue Bell	5 Gal
㉕	Agave hybrid Blue Bell	5 Gal
㉖	Agave hybrid Blue Bell	5 Gal
㉗	Agave hybrid Blue Bell	5 Gal
㉘	Agave hybrid Blue Bell	5 Gal
㉙	Agave hybrid Blue Bell	5 Gal
㉚	Agave hybrid Blue Bell	5 Gal
㉛	Agave hybrid Blue Bell	5 Gal
㉜	Agave hybrid Blue Bell	5 Gal
㉝	Agave hybrid Blue Bell	5 Gal
㉞	Agave hybrid Blue Bell	5 Gal
㉟	Agave hybrid Blue Bell	5 Gal
㊱	Agave hybrid Blue Bell	5 Gal
㊲	Agave hybrid Blue Bell	5 Gal
㊳	Agave hybrid Blue Bell	5 Gal
㊴	Agave hybrid Blue Bell	5 Gal
㊵	Agave hybrid Blue Bell	5 Gal
㊶	Agave hybrid Blue Bell	5 Gal
㊷	Agave hybrid Blue Bell	5 Gal
㊸	Agave hybrid Blue Bell	5 Gal
㊹	Agave hybrid Blue Bell	5 Gal
㊺	Agave hybrid Blue Bell	5 Gal
㊻	Agave hybrid Blue Bell	5 Gal
㊼	Agave hybrid Blue Bell	5 Gal
㊽	Agave hybrid Blue Bell	5 Gal
㊾	Agave hybrid Blue Bell	5 Gal
㊿	Agave hybrid Blue Bell	5 Gal

GROUNDCOVER

[illegible]

KEYNOTES

- 1 SHADED TOT LOT
- 2 BANADA (30' x 30')
- 3 GARDEN WALL
- 4 LANDSCAPE BENCH
- 5 BBQ GRILL
- 6 TRASH RECEPTACLE
- 7 BIKE RACK
- 8 TURF
- 9 CONCRETE PATH
- 10 PET WASTE STATION
- 11 BASKETBALL COURT

PLANT LEGEND

TREES	SCIENTIFIC NAME	COMMON NAME	SIZE
	<i>Acacia aneura</i>	Mulga	24" Box
	<i>Acacia saligna</i>	Willow Acacia	24" Box
	<i>Casahuate cactaceae 'Smoothie'</i>	Thornless Casahuate	36" Box
	<i>Chalciphi</i>	Chalciphi	24" Box
	<i>Chalciphi salicifolia 'Pink Dream'</i>	Chalciphi	24" Box
	<i>Fraxinus velutina 'Finn West'</i>	Fraxinus velutina	24" Box
	<i>Phoenix dactyloides</i>	Dwarf Palm	20" Maximal
	<i>Olea europaea 'Sweet Olive'</i>	Sweet Olive	36" Box
	<i>Sourwood</i>	Sourwood	24" Box
	<i>Horseshoe Pine</i>	Horseshoe Pine	24" Box
	<i>Red Pinus Pinus</i>	Red Pinus	24" Box
	<i>Prostrata X Red Pinus</i>	Prostrata X Red Pinus	24" Box
	<i>Prostrata X Red Pinus</i>	Prostrata X Red Pinus	24" Box
	<i>Quercus virginiana</i>	Live Oak	24" Box
	<i>Ulmus parvifolia</i>	Chinese Elm	24" Box



KEYNOTES

- 1 SHADED TOT LOT
- 2 RAMADA (30' x 30')
- 3 GARDEN WALL
- 4 LANDSCAPE BENCH
- 5 BBQ GRILL
- 6 TRASH RECEPTACLE
- 7 BIKE RACK
- 8 TURF
- 9 6' CONCRETE PATH
- 10 PET WASTE STATION



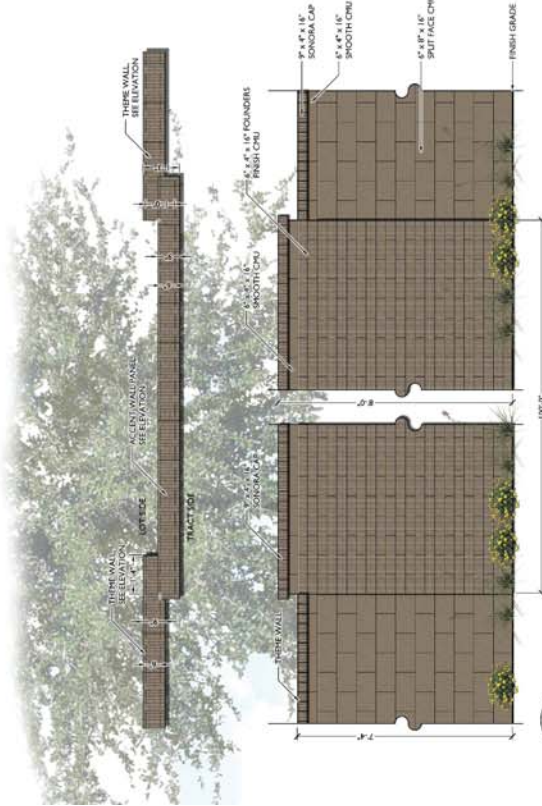
PLANT LEGEND		SCIENTIFIC NAME	COMMON NAME	SIZE
TREES		<i>pinus</i>	Pine	24" Box
		<i>salix</i>	Willow	24" Box
		<i>area caudata 'Smoothie'</i>	Thornless Cuckoo	36" Box
		a tallierensis 'Pink Dwarf'	Chickadee **	24" Box
		a velutina 'Ten Wines'	Fire Wreath Ash *	24" Box
		a decolorata	Dwarf Palm	20" Miniature
		argentea 'Snow Hill'	Snow Hill Olive	36" Box
		a 'Snowdon Emerald'	Snowdon Emerald	24" Box
		<i>laurus</i>	Honore Pine	24" Box
		a 'X Red Puff'	Red Puff Pearlspear **	24" Box
		is hybrid 'Phoenix'	Thornless Mesquite	24" Box
		a virginiana	Live Oak **	24" Box
		parvifolia	Chinese Evergreen Elm	24" Box

SUBURBS/ACCENTS		COMMON NAME		SIZE
1	Agave americana	Century Plant		5 Gal
2	Agave parviflora	Ten flowered Agave		5 Gal
3	Aloe hybrid Blue Elf	Blue Elf Aloe		5 Gal
4	Bougainvillea 'La Jolla'	'La Jolla' Bougainvillea		5 Gal
5	Cassipouia pauciflora	Red Red of Paradise		5 Gal
6	Callitriche californica	Black Berry Duster		5 Gal
7	Callitriche emoryiifolia	Pink Berry Duster		5 Gal
8	Callitriche vernalis	Little John		5 Gal
9	Dalea greggii	Trailing Wildgo Bush		5 Gal
10	Daphne wickströmii	Dwarf Spirea		5 Gal
11	Eucalyptus laurina	Bottlebrush		5 Gal
12	Emmenanthe gillii ssp. Carmen	'Winter Bells' Emu Bush		5 Gal
13	Emmenanthe argentea	Blue Bells		5 Gal
14	Emmenanthe maculata	'Violette' Emu Bush		5 Gal
15	Euphorbia 'regia'	Copier Plant		5 Gal
16	Goussypium tomentosii	San Hieron's Hibiscus		5 Gal
17	Hesperaloe parviflora	Cardinal Hesperaloe		5 Gal
18	Jacquinia speciosa	Brakeplant Red Yucca		5 Gal
19	Larrea x 'Dallas Red'	Mexican Monarda		5 Gal
20	Leucophyllum angustifolium	'Dallas Red' Larrea		5 Gal
21	Leucophyllum candelum	Red Bravo Sage		5 Gal
22	Leucophyllum xanthophyllum	Thunder Cloud Sage		5 Gal
23	Leucophyllum xanthophyllum 'Carmen'	Carmen Sage		5 Gal
24	Melaleuca cajuputi	'Rega Honey' Melaleuca		5 Gal
25	Melaleuca cajuputi 'Rega Honey'	'Autumn Glow' Melaleuca		5 Gal
26	Melaleuca cajuputi 'Rega Honey'			5 Gal
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1 **THEME WALL**
Scale: 1/2" = 1'-0"

2 **PARTIAL VIEW WALL**
Scale: 1/2" = 1'-0"



3 **FOUNDERS FINISH ACCENT PANEL**
Scale: 1/2" = 1'-0"



4 **TRELLIS SEATING NODE**
NTS



METAL
Grey Beige RAL 1019 OAE



SMOOTH CMU BLOCK
Color: Desert by Superlite OAE



SPLIT FACE CMU BLOCK
Color: Desert by Superlite OAE



SONORAN CMU CAP
Color: Desert by Superlite OAE



FOUNDERS FINISH CMU BLOCK
Color: Desert by Superlite OAE



L-5.01
11.18.2020



FULTON HOMES | Fulton Homes Acclaim

Avondale, AZ Conceptual Wall Details



1 RAIL FENCE
Scale: 1/2" = 1'-0"



2 GARDEN WALL
Scale: 1/2" = 1'-0"



SMOOTH CMU BLOCK
Color: Desert by Superlite OAE



SPLIT FACE CMU BLOCK
Color: Desert by Superlite OAE



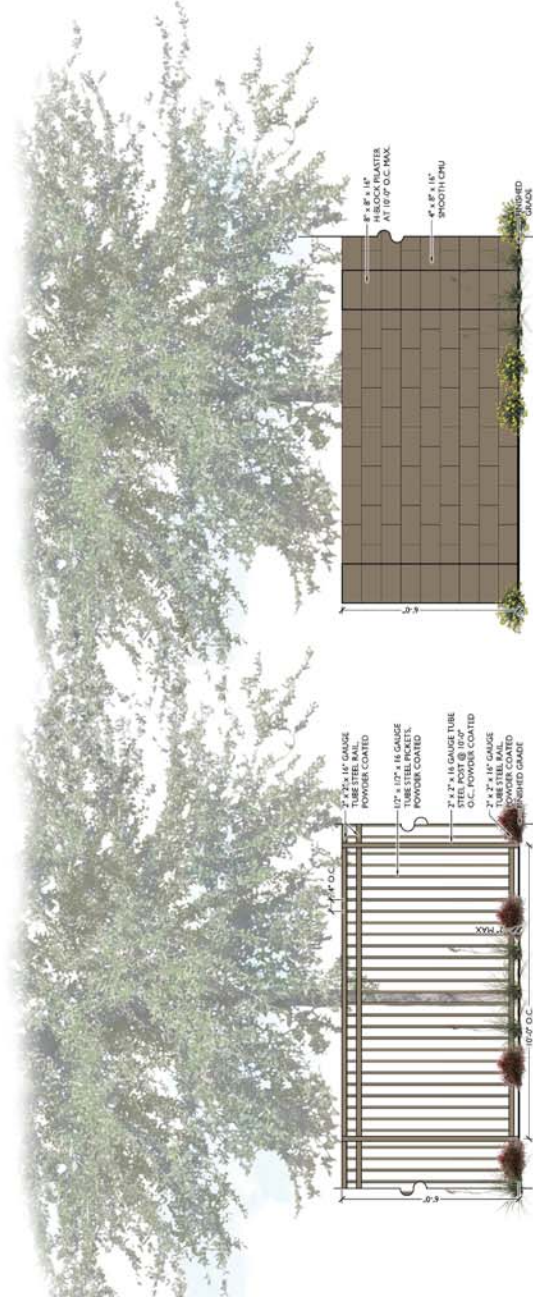
METAL
Grey Beige RAL 1019 OAE



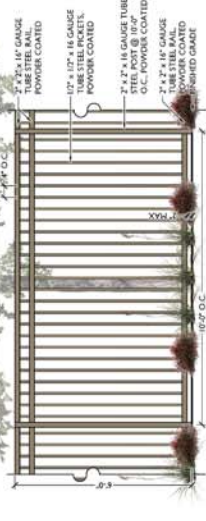
SONORAN CMU CAP
Color: Desert by Superlite OAE



FOUNDERS FINISH CMU BLOCK
Color: Desert by Superlite OAE



3 FULL VIEW FENCE
Scale: 1/2" = 1'-0"



4 BUILDER WALL
Scale: 1/2" = 1'-0"





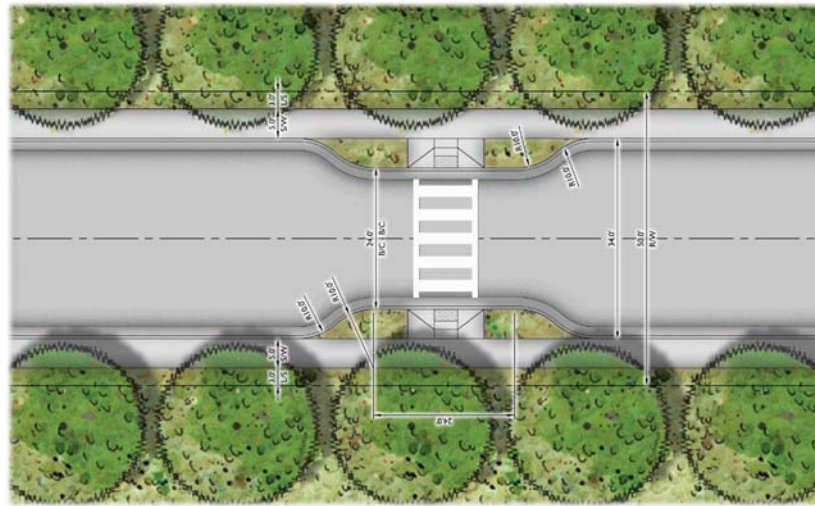


TRAFFIC CALMING PEDESTRIAN CROSSING CHOKER

Scale: 1" = 10'-0"

SYMBOL	ITEM
	6' SIDEWALK
	5' CITY SIDEWALK
	8' CONCRETE SIDEWALK
	8' DETACHED SIDEWALK (UPGRADED CITY WALK)
	6' DETACHED SIDEWALK (UPGRADED CITY WALK)
	10' CONCRETE TRAIL IN 20' TRAIL EASEMENT

PEDestRIAN CROSSING CHOKER (SEE DETAILS BELOW)



MATERIALS & COLOR BOARD



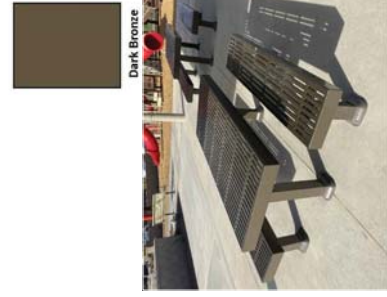
PET STATION
JJB204 BY Zero Waste USA
Color: Green OAE



LANDSCAPE BENCH
By Webcoat. Model B6W6WINGLINES.
Color: Seat: Clay, Frame: Patrician Bronze OAE



TRASH RECEPTACLE
By Webcoat. Model TR32CLASSIC
Color: Can Clay, Lid: Brown OAE



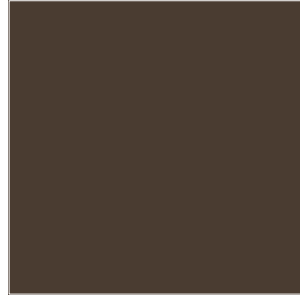
PICNIC TABLE
By Wabash Valley. DS201T Surface Mount
Color: Seat & Frame: Dark Bronze, OAE



BIKE RACK
By Webcoat. Model MSBR. In-Ground Mount
Color: Bronze OAE



BBQ GRILL
By Wabash Valley. Model GR105N
Color: Black OAE



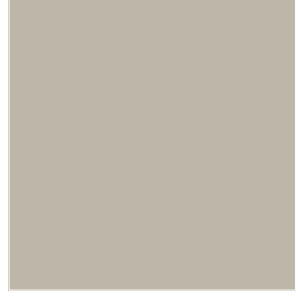
SMOOTH CMU BLOCK
Color: SW9183 Dark Dove by Sherwin Williams
OAE



SPLIT FACE CMU BLOCK
Color: SW7039 Virtual Talpe by Sherwin Williams
OAE



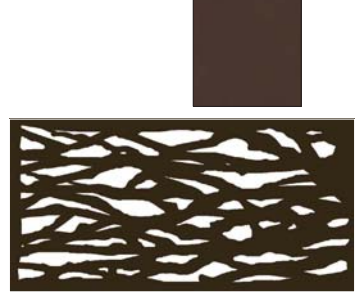
SONORAN CMU CAP
Color: SW9183 Dark Dove by Sherwin Williams
OAE



METAL
Color: Grey Beige RAL1019 OAE



DECOMPOSED GRANITE
Desert Brown: 3/4" Screened (Landscape Areas)
and 1/4" Minus (Paths) OAE



PARASOLEIL PANEL
Pattern: Quiet Wood. Color: Umbria OAE

Landscape Maintenance Schedule

PLANT LEGEND

TREES		SHRUBS/ACCENTS			
SYMBOL	SCIENTIFIC NAME	COMMON NAME	SIZE	EMITTER GPH	MAINTENANCE NOTES
	<i>Acacia anaura</i>	Mulga	24" Box	See Tree Emitter Schedule	Trim Canopy to 70% of free, Stake as required
	<i>Acacia salicina</i>	Willow Acacia	24" Box	See Tree Emitter Schedule	Trim Canopy to 70% of free, Stake as required
	<i>Castanopsis calacalo 'Snoothie'</i>	Thornless Castalone	36" Box	See Tree Emitter Schedule	Trim Canopy to 70% of free, Stake as required
	<i>Chalcipus saunderseni 'Pink Dawn'</i>	Chalcipus **	24" Box	See Tree Emitter Schedule	Trim Canopy to 70% of free, Stake as required
	<i>Fraxinus velutina 'Fan West'</i>	Fan West Ash *	24" Box	See Tree Emitter Schedule	Trim Canopy to 70% of free, Stake as required
	<i>Jacaranda mimosifolia</i>	Jacaranda	36" Box	See Tree Emitter Schedule	Trim Canopy to 70% of free, Stake as required
	<i>Phoenix dactylifera</i>	Date Palm	20" Matched	See Palm Bubbler Schedule	Plant in compacted sand and ballfill
	<i>Olea europaea 'Swan Hill'</i>	'Swan Hill' Olive	36" Box	See Tree Emitter Schedule	Trim Canopy to 70% of free, Stake as required
	<i>Parkinsonia x Sonora Emerald'</i>	Sonoran Emerald Palo Verde	24" Box	See Tree Emitter Schedule	Trim Canopy to 70% of free, Stake as required
	<i>Pinus edulis</i>	Monzeli Pine	24" Box	See Tree Emitter Schedule	Trim Canopy to 70% of free, Stake as required
	<i>Pistacia X 'Red Path'</i>	Red Path Pistachio **	24" Box	See Tree Emitter Schedule	Trim Canopy to 70% of free, Stake as required
	<i>Prosopis hybrid Phoenix'</i>	Thornless Mesquite	24" Box	See Tree Emitter Schedule	Trim Canopy to 70% of free, Stake as required
	<i>Quercus virginiana</i>	Live Oak **	36" Box	See Tree Emitter Schedule	Trim Canopy to 70% of free, Stake as required
	<i>Ulmus parvifolia</i>	Chinese Evergreen Elm **	24" Box 36" Box	See Tree Emitter Schedule	Trim Canopy to 50% of free, Stake as required
SHRUBS/ACCENTS		COMMON NAME	SIZE	EMITTER GPH	MAINTENANCE NOTES
	<i>Bougainvillea 'La Jolla'</i>	'La Jolla' Bougainvillea	5 Gal	2.0 GPH Emitter	Trim back to 12" March 1st
	<i>Cassipouia pubertherma</i>	Red Bird of Paradise	1.0 GPH Emitter	1.0 GPH Emitter	Trim shrub to 18" in Oct. Dormant in winter
	<i>Callistemon viminalis 'Little John'</i>	Little John	5 Gal	1.0 GPH Emitter	Trim branches to maintain natural shape
	<i>Dalea cypripas 'Sierra Gold'</i>	Sierra Gold Dalea	1 Gal	1.0 GPH Emitter	Prune individual branches to maintain natural shape
	<i>Eriomphala glabra sp. Canosa 'Winter Blaze'</i>	'Winter Blaze' Eru Bush	5 Gal	1.0 GPH Emitter	Trim shrub to 18" March 1st each year
	<i>Eriomphala hydropath 'Blue Bell'</i>	Blue Bells	5 Gal	1.0 GPH Emitter	Trim shrub to 18" March 1st each year
	<i>Gossypium halimifolium</i>	San Marcos Hibiscus	5 Gal	1.0 GPH Emitter	Prune individual branches to maintain natural shape
	<i>Hesperaloe parviflora</i>	Giant Hesperaloe	5 Gal	1.0 GPH Emitter	Trim dead or dying lower stalks by June 1st
	<i>Hesperaloe parviflora 'Brake Lights'</i>	Brake Lights Red Yucca	5 Gal	1.0 GPH Emitter	Trim dead or dying lower stalks by June 1st
	<i>Larrea x Dallas Red</i>	Dallas Red Larrea	5 Gal	1.0 GPH Emitter	Trim back to 12" in diameter on March 1
	<i>Leucosiphium bursinense 'Ro Bravo'</i>	Ro Bravo Sage	5 Gal	1.0 GPH Emitter	Trim back to 24" diameter on March 1st
	<i>Leucosiphium caudatum 'Thunder Cloud'</i>	Thunder Cloud Sage	5 Gal	1.0 GPH Emitter	Trim back to 18" diameter on March 1st
	<i>Muhlenbergia capillaris 'Regal Mist'</i>	'Regal Mist' Muhly	5 Gal	2.0 GPH Emitter	Trim grass to 6" height on Feb 15th each year
	<i>Muhlenbergia inderbiana 'Autumn Glow'</i>	'Autumn Glow' Muhly	5 Gal	2.0 GPH Emitter	Trim grass to 6" height on Feb 15th each year
	<i>Muhlenbergia rigens</i>	Deer Grass	5 Gal	2.0 GPH Emitter	Trim grass to 6" height on Feb 15th each year
	<i>Myrsine tomentosa 'Compacta'</i>	Dwarf Myrtle	5 Gal	2.0 GPH Emitter	Prune individual branches to maintain natural shape
	<i>Ruellia brittaniana</i>	Purple Ruella	5 Gal	1.0 GPH Emitter	Trim back to 12" in diameter on March 1 each year
	<i>Ruellia peninsularis</i>	Desert Ruella	5 Gal	1.0 GPH Emitter	Trim back to 18" in diameter on March 1 each year
	<i>Ruellia epipactisformis</i>	Coral Fountain	5 Gal	1.0 GPH Emitter	Trim back to 24" in diameter in March.
	<i>Sesuvia portulacastris</i>	Desert Cussia	5 Gal	1.0 GPH Emitter	Trim to 8" April 1st
	<i>Tecomara x 'Sunrise'</i>	Sunrise Eperstacea	5 Gal	1.0 GPH Emitter	Trim branches March, and as needed

GROUNDCOVERS

Plant	Water	Fertilizer	Pruning	Notes
☺ <i>Convolvulus onosum</i>	Bush Morning Glory	1.0 GPH Emittor	1 Gal	Do not trim unless necessary to keep off landscape
☹ <i>Lantana montevidensis</i>	Trailing Purple Lantana	1.0 GPH Emittor	1 Gal	Trim ground cover to 6" diameter on March 1st
☹ <i>Lantana x New Gold</i>	New Gold Lantana	1.0 GPH Emittor	1 Gal	Trim ground cover to 6" diameter on March 1st
☹ <i>Renaissance officials' Hareington Carpet'</i>	Trailing Rosemary	1.0 GPH Emittor	1 Gal	Do not trim unless necessary to keep off landscape
☹ <i>Syngnathus trilobata</i>	Yellow Dot	1.0 GPH Emittor	1 Gal	Trim off dead growth in March

CAESALPINIA PULCHERRIMA
PRUNED FOR WINTER



LEUCOPHYLLUM AFTER PRUNING TO REJUVENATE



WESPERALOE PRUNING- CUT FLOWER STALKS ONLY:
INCORRECT PRUNING CORRECT PRUNING



MONTHLY MAINTENANCE SCHEDULE

JANUARY	* LAWN MAINTENANCE PERENNIAL RYE GRASS. FERTILIZE ONCE WITH A PRODUCT THAT HAS 3:1:2 RATIO (EXAMPLE: 21-7-14)
FEBRUARY	* LAWN MAINTENANCE PERENNIAL RYE GRASS. FERTILIZE ONCE WITH A PRODUCT THAT HAS 3:1:2 RATIO (EXAMPLE: 21-7-14)
MARCH	* LAWN MAINTENANCE PERENNIAL RYE GRASS. FERTILIZE ONCE WITH A PRODUCT THAT HAS 3:1:2 RATIO (EXAMPLE: 21-7-14)
APRIL	* LAWN MAINTENANCE PERENNIAL RYE GRASS. FERTILIZE ONCE WITH A PRODUCT THAT HAS 3:1:2 RATIO (EXAMPLE: 21-7-14)
MAY	* LAWN MAINTENANCE PERENNIAL RYE GRASS. FERTILIZE ONCE WITH A PRODUCT THAT HAS 3:1:2 RATIO (EXAMPLE: 21-7-14)
JUNE	* LAWN MAINTENANCE BERMUDA GRASS. FERTILIZE ONCE WITH A PRODUCT THAT HAS 3:1:2 RATIO (EXAMPLE: 21-7-14) HOW AND WHEN TO FERTILIZE: FERTILIZE THE FIRST 2 WEEKS OF SUMMER
JULY	* LAWN MAINTENANCE BERMUDA GRASS. FERTILIZE ONCE WITH A PRODUCT THAT HAS 3:1:2 RATIO (EXAMPLE: 21-7-14) HOW AND WHEN TO FERTILIZE: FERTILIZE THE FIRST 2 WEEKS OF SUMMER
AUGUST	* LAWN MAINTENANCE BERMUDA GRASS. FERTILIZE ONCE WITH A PRODUCT THAT HAS 3:1:2 RATIO (EXAMPLE: 21-7-14) HOW AND WHEN TO FERTILIZE: FERTILIZE THE FIRST 2 WEEKS OF SUMMER
SEPTEMBER	* LAWN MAINTENANCE BERMUDA GRASS. FERTILIZE ONCE WITH A PRODUCT THAT HAS 3:1:2 RATIO (EXAMPLE: 21-7-14) HOW AND WHEN TO FERTILIZE: FERTILIZE THE FIRST 2 WEEKS OF SUMMER
OCTOBER	* LAWN MAINTENANCE PERENNIAL RYE GRASS. FERTILIZE ONCE WITH A PRODUCT THAT HAS 3:1:2 RATIO (EXAMPLE: 21-7-14)
NOVEMBER	* LAWN MAINTENANCE PERENNIAL RYE GRASS. FERTILIZE ONCE WITH A PRODUCT THAT HAS 3:1:2 RATIO (EXAMPLE: 21-7-14)
DECEMBER	* LAWN MAINTENANCE PERENNIAL RYE GRASS. FERTILIZE ONCE WITH A PRODUCT THAT HAS 3:1:2 RATIO (EXAMPLE: 21-7-14)

NOTES:

- * TREES WILL NEED TO BE TRIMMED AT LEAST ONCE IN THE SPRING. SOME TREE SPECIES WILL ALSO NEED TO BE TRIMMED IN THE SUMMER AND FALL MONTHS.
- * PALM TREES WILL NEED TO MAINTAINED ON AN INDIVIDUAL BASIS.
- * RAKE D'CEPOSED GRANITE AREAS AT LEAST ONCE A MONTH.

BERMUDA GRASS - MONTHLY REQUIREMENTS

MONTHLY IRRIGATION		ANNUAL TOTAL	
ACCEPTABLE TURF QUALITY	1.4" 2.0"	3.4" 5.2"	6.4" 7.7"
HIGH TURF QUALITY	1.7" 2.4"	4.0" 5.9"	7.3" 8.4"
			1.6" 2.5"
			4.8" 5.6"
			6.4" 7.3"
			7.3" 8.4"
			8.4" 9.5"
			9.5" 10.6"
			10.6" 11.7"
			11.7" 12.8"
			12.8" 13.9"
			13.9" 15.0"
			15.0" 16.1"
			16.1" 17.2"
			17.2" 18.3"
			18.3" 19.4"
			19.4" 20.5"
			20.5" 21.6"
			21.6" 22.7"
			22.7" 23.8"
			23.8" 24.9"
			24.9" 26.0"
			26.0" 27.1"
			27.1" 28.2"
			28.2" 29.3"
			29.3" 30.4"
			30.4" 31.5"
			31.5" 32.6"
			32.6" 33.7"
			33.7" 34.8"
			34.8" 35.9"
			35.9" 37.0"
			37.0" 38.1"
			38.1" 39.2"
			39.2" 40.3"
			40.3" 41.4"
			41.4" 42.5"
			42.5" 43.6"
			43.6" 44.7"
			44.7" 45.8"
			45.8" 46.9"
			46.9" 48.0"
			48.0" 49.1"
			49.1" 50.2"
			50.2" 51.3"
			51.3" 52.4"
			52.4" 53.5"
			53.5" 54.6"
			54.6" 55.7"
			55.7" 56.8"
			56.8" 57.9"
			57.9" 59.0"
			59.0" 60.1"
			60.1" 61.2"
			61.2" 62.3"
			62.3" 63.4"
			63.4" 64.5"
			64.5" 65.6"
			65.6" 66.7"
			66.7" 67.8"
			67.8" 68.9"
			68.9" 70.0"
			70.0" 71.1"
			71.1" 72.2"
			72.2" 73.3"
			73.3" 74.4"
			74.4" 75.5"
			75.5" 76.6"
			76.6" 77.7"
			77.7" 78.8"
			78.8" 79.9"
			79.9" 81.0"
			81.0" 82.1"
			82.1" 83.2"
			83.2" 84.3"
			84.3" 85.4"
			85.4" 86.5"
			86.5" 87.6"
			87.6" 88.7"
			88.7" 89.8"
			89.8" 90.9"
			90.9" 92.0"
			92.0" 93.1"
			93.1" 94.2"
			94.2" 95.3"
			95.3" 96.4"
			96.4" 97.5"
			97.5" 98.6"
			98.6" 99.7"
			99.7" 100.8"
			100.8" 101.9"
			101.9" 103.0"
			103.0" 104.1"
			104.1" 105.2"
			105.2" 106.3"
			106.3" 107.4"
			107.4" 108.5"
			108.5" 109.6"
			109.6" 110.7"
			110.7" 111.8"
			111.8" 112.9"
			112.9" 114.0"
			114.0" 115.1"
			115.1" 116.2"
			116.2" 117.

*NOTE: TURFGRASS CONSUMPTION USES VALUES FOR THE PHOENIX AREA WERE PROVIDED BY THE UNIVERSITY OF ARIZONA COOPERATIVE EXTENSION SERVICE

LANDSCAPE MAINTENANCE INTENT

THIS PLANT PALETTE WAS THOUGHTFULLY SELECTED WITH THE NATURAL FORM OF THE PLANT AS THE BASIS OF DESIGN. EACH PLANT HAS CHARACTERISTICS THAT ARE IMPORTANT TO THE DESIGN. THESE RANGE FROM SIZE, SHAPE, TEXTURE, AND COLOR. THEREFORE, THERE WAS A NEED TO DESIGN A PLANTING PROGRAM THAT WOULD BE PUT INTO EFFECT TO MAKE SURE WE WOULD GET THE BEAUTY OF THE NATURAL FORM OF THE PLANT MATERIAL. PRUNING FLOWERING SHRUBS IS AN ESSENTIAL GARDENING TECHNIQUE USED TO KEEP FLOWERING SHRUBS COLORFUL, HEALTHY, AND WELL-SHAPED BUT THE NATURAL SHAPE CAN BE DESTROYED IF PLANTS ARE NOT PRUNED PROPERLY. THE OBJECTIVE OF THE PRUNING PROGRAM WAS ESTABLISHED TO MEET THIS OBJECTIVE. WE RECOMMEND TRIMMING INDIVIDUAL PLANTS BACK ONLY YEAR AT A SPECIFIED TIME. THIS WILL ALLOW EACH PLANT SPECIES TO RECOVER QUICKLY AND MAINTAIN THE NATURAL SHAPE AND FLOWERING HABIT THROUGHOUT THE REMAINDER OF THE YEAR. THIS WILL PREVENT SHRUBS FROM BECOMING WOODY AND WILL REDUCE THE MAINTENANCE COSTS.

PLEASE REFER TO THE PLANT SCHEDULE FOR THE MAINTENANCE REQUIREMENT OF EACH INDIVIDUAL PLANT.

DRIP IRRIGATION WATERING SCHEDULE

DAILY HIGH TEMP	WATERING HRS.	DAY INTERVAL	EMITTER ALLOCATION
50-75	0.5 HOURS	EVERY FOURTH DAY	SEE PLANT SCHEDULE
75-95	1.0 HOURS	EVERY THIRD DAY	SEE PLANT SCHEDULE
95-110	1.5 HOURS	EVERY OTHER DAY	SEE PLANT SCHEDULE
110 +	2.0 HOURS	EVERY OTHER DAY	SEE PLANT SCHEDULE

TURF IRRIGATION WATERING SCHEDULE

ALL BERMUDA AND RYE GRASS SHOULD BE DEEP WATERED IN ORDER TO PROMOTE DEEP ROOT GROWTH. ONCE ESTABLISHED, LANDSCAPE MAINTENANCE CONTRACTOR SHALL WATER THE TURF AREAS NO MORE THAN ONCE EVERY THREE DAYS. THE AMOUNT OF WATER APPLIED TO THE TURF AREA SHALL BE DIRECTLY PROPORTIONAL TO THE IRRIGATION SYSTEM PRECIPITATION RATE AND THE AMOUNT OF WATER REQUIRED FOR BERMUDA OR RYE GRASS AT A SPECIFIC TIME OF YEAR. (SEE SCHEDULE FOR BERMUDA GRASS BELOW LEFT).

FOR RYE GRASS WATERING REQUIREMENTS, PLEASE REFER TO THE PHOENIX WATER CONSERVATION OFFICE (602 256 3310) OR THE ARIZONA REPUBLIC'S WEATHER AGE. LAWN WATERING REQUIREMENTS ARE PUBLISHED DAILY

TREE EMITTER (MULTI OUTLET) SCHEDULE

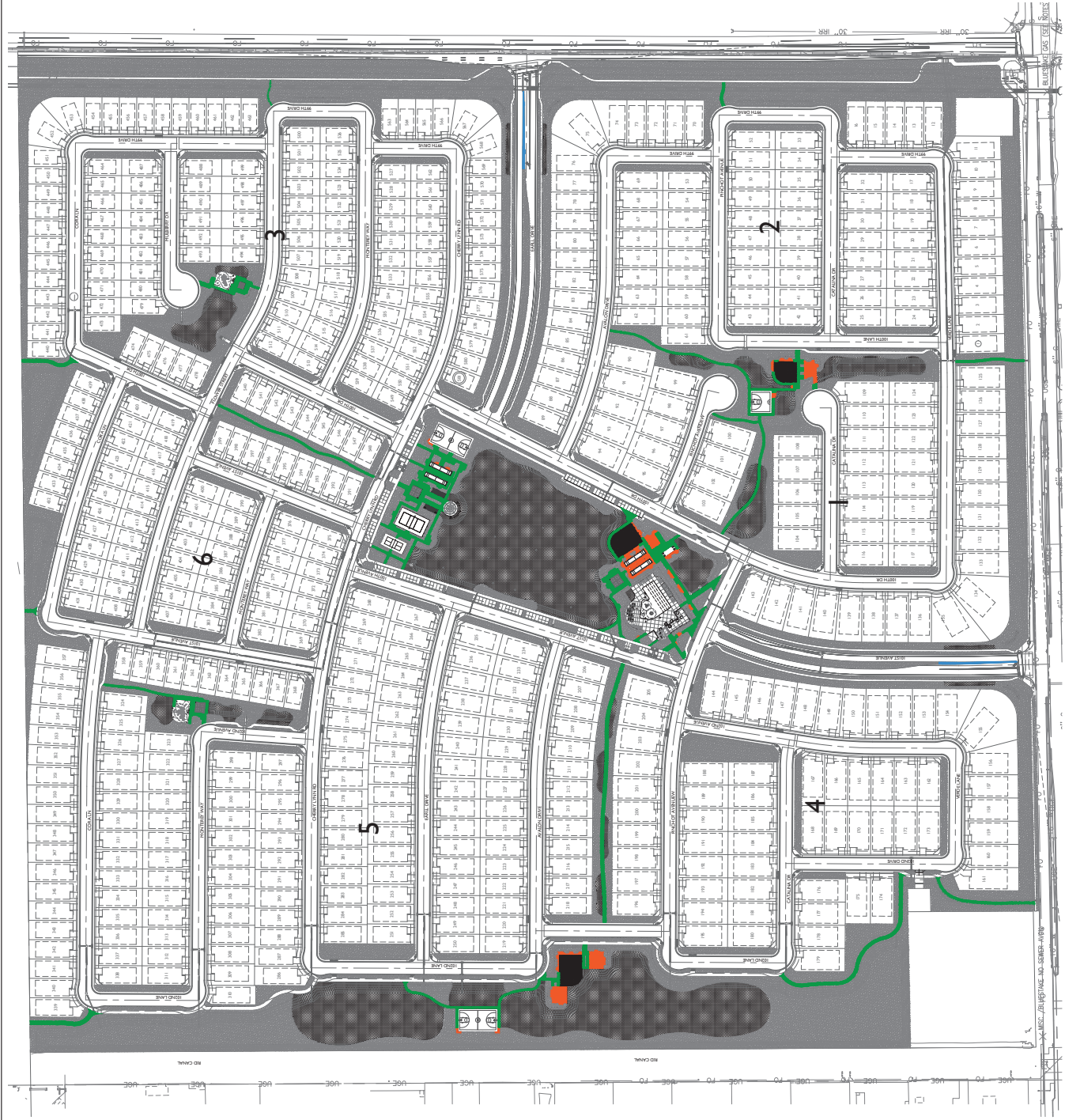
TREES	MODEL	QTY PER TREE	TOTAL GPH
15 GAL	ML-21.0	2	10
24" BOX	ML-21.0	2	10
36" BOX	ML-21.0	2	12

10'0" POT
24" BOX
36" BOX
15 GAL
10'0" DEPTH
10'0" WIDTH
TREE PIT LAYOUT - MULTI OUTLET

PALM BUBBLER SCHEDULE

TREES	MODEL	QTY PER TREE	TOTAL GPM	TOTAL GPH
-------	-------	--------------	-----------	-----------

SELECTIVE THINNING TO PRESERVE NATURAL SHAPE OF PLANT



MATERIALS LEGEND

SYMBOL	ITEM	SIZE
	"Desert Brown" Decomposed Granite or Equal	3/4" Screened 2" Depth, Min.
	Standard Concrete Paving	
	Decorative Paving	
	Decorative Median Paver	



Integral Concrete Paving
Color: Davis Colors Taupe 1677
OAE

Median Concrete Paver
Color: Sierra
Dublin Cobble by Belgard, OAE



FINISH:
• SALT FINISH
• MEDIAN BROOM



DECORATIVE TYPICAL LOCATION IN AMENITY AREA.

NOTE:
FINAL DECORATIVE PAVING COLOR AND FINISH WILL BE
FINALIZED IN CONSTRUCTION DOCUMENT PLANS.



SCALE 1" = 150'-0"
0' 75' 150' 300'

Fulton Homes Acclaim
Avondale, Arizona
Material Master Plan

Project:

Revisions:

1ST PRELIMINARY PLANTING PLAN: 08/26/2020
2ND PRELIMINARY PLANTING PLAN: 11/18/2020
3RD PRELIMINARY PLANTING PLAN: 10/14/2020

Drawn by: KZ
Checked by: KZ

20-0146
CONSTRUCTION DOCUMENTS
L-10.01

Sheet No.
L-10.01

EPS GROUP
1130 N. Alma School Rd., Suite 120
Mesa, AZ 85201
T: 480.503.2250 | F: 480.503.2258
www.epsgroupinc.com

Exhibit H

Certificates of Adequate School Facilities

Pendergast Elementary School District

Tolleson Union High School District



CERTIFICATE OF ADEQUATE SCHOOL FACILITIES

An application for a General Plan Amendment (GPA)/Rezoning has been submitted to the City of Avondale, Development & Engineering Services Department, for review.

Project: Sierra Avondale Project Manager: Stephen W. Anderson
Request: GPA and Rezone Acreage/Parcel Size: 149.69 net acres
Current Density Allowed: N/A Density Proposed: Up to 14 du/acre
Total number of residential units proposed: 676 dwelling units

As an authorized representative of the District, please complete the questionnaire below.

Does the District have adequate capacity to accommodate the estimated enrollment from the proposed development?

Yes ☒ No ☐

If answered no, please summarize the needs of the district as they relate to serving the students generated by the proposed development.

Is a school site within the proposed development needed?

Yes ☐ No ☒

If answered yes, how many acres is needed for the school site?

Is the district currently working with the developer to provide or help meet the needs identified above through a developer assistance or impact agreement? Yes ☐ No ☐

If answered yes, please explain below:

****If additional writing space is needed, please attach pages to this form****

Date Reviewed: 1/14/2020

School District: Pindergeist Elem School District

District Superintendent: Dr. Lily Motos-DeBlieux

Phone #: 623 772-2800

E-mail: jfimbres@psdaz.org

Signature: _____

It is the developer's responsibility to ensure that this form is completed by an authorized representative of the District noted above and returned to the Development & Engineering Services Department prior to the scheduling of any City Council meetings

Development & Engineering Services Department

11465 W. Civic Center Drive, #110, Avondale, AZ 85323 • Phone (623) 333-4000 • Fax (623) 333-0400 • TDD (623) 333-0010

www.avondaleaz.gov/development/services



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Is the district currently working with the developer to provide or help meet the needs identified above through a developer assistance or impact agreement? Yes ☐ No ☒

If answered yes, please explain below:

****If additional writing space is needed, please attach pages to this form****

Date Reviewed: January 17, 2020

School District: Tolleson Union High School District #214

District Superintendent: Nora Gutierrez

Phone #: 623-478-4000

E-mail: nora.gutierrez@tuhisd.org

Signature: _____

It is the developer's responsibility to ensure that this form is completed by an authorized representative of the District noted above and returned to the Development & Engineering Services Department prior to the scheduling of any City Council meetings

Development & Engineering Services Department

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