

PHOENIX FIRE STATION

DRAFT 1st Amendment

FIRE PROTECTION

(Photo: Phoenix Fire Station #72)

CHAPTER 3: FIRE PROTECTION INFRASTRUCTURE IMPROVEMENTS PLAN

The City charges a Fire Protection Impact Fee in order to cover the cost of land acquisition and capital facilities in the growth areas of the City. The Fire Protection Impact Fee is based on the cost of land and construction of new or capacity-expanding fire stations, and certain types of equipment required to provide fire protection services.

Service Areas

The Fire Protection Impact Fee is charged in four distinct service areas: two in the northern area of the City, and two in the southern area, and named in the following manner:

- Northwest/Deer Valley
- Northeast
- Southwest (Estrella North, Estrella South, Laveen West, and Laveen East)
- Ahwatukee

Please see the map on the following page to see the boundaries of each of the service areas.

As with the other Impact Fee categories, the City has a separate fee schedule for each service area. The City charges a Fire Protection Impact Fee for new development that occurs in any of the four service areas. Given that the City's Fire Protection Impact Fee calculations include only fire stations and the equipment required to provide fire protection services, the service areas and corresponding benefit districts assure that impact fee funds are spent in reasonable proximity to the developments that pay the fees.

Level of Service

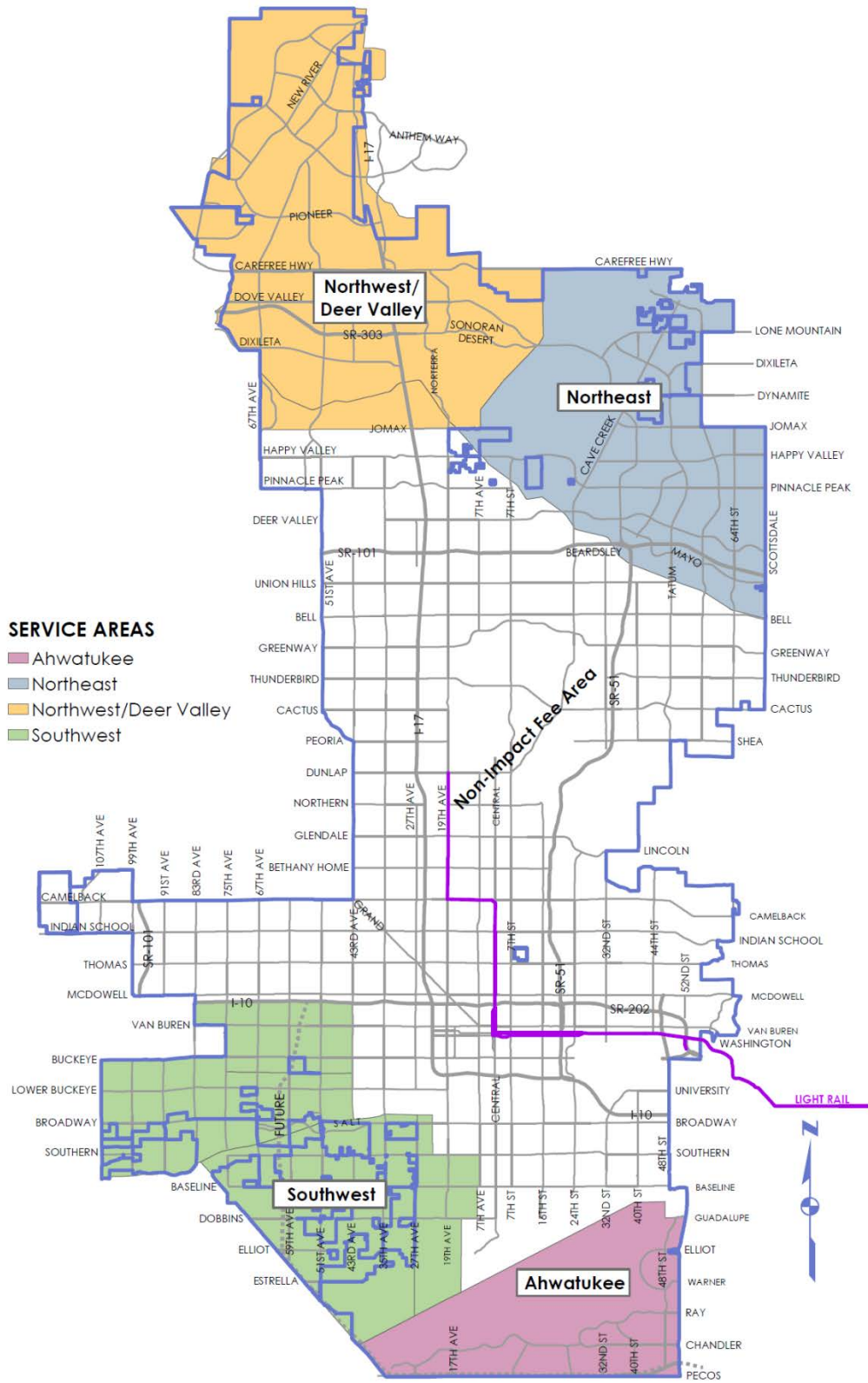
The City of Phoenix has an adopted level of service for branch fire protection service planning, as follows:

- **1 fire station per 10,000 EDUs**, plus associated land.

In addition, the following vehicle and equipment planning standards are necessary to provide fire protection services:

- 1 fire engine per 10,000 EDUs.
- 1 advanced life support (ALS) rescue vehicle per 25,000 EDUs.
- 1 brush truck per 75,000 EDUs.
- 1 battalion command vehicle per 50,000 EDUs.
- 1 ladder per 50,000 EDUs
- 1 ladder tender per 50,000 EDUs.
- 1 utility or specialized vehicle per 125,000 EDUs.
- 1 tanker per 250,000 EDUs.

Figure 9. Fire Protection Impact Fee Service Areas.



It should be noted that the decision regarding the need of a new fire station is also dependent upon the geography of an area, existing roads, existing traffic, types of development, and the ability to meet a target call response time of 5 minutes. Additionally, a fire station is generally deemed necessary for construction when half of the planning standard (5,000 EDUs) have been constructed.

Analysis of Existing Service and Capacity in the Service Areas

Before calculating future needs, it is necessary to analyze existing fire protection facilities, vehicles, and equipment which contribute toward the Fire Protection level of service to make sure that the Fire Protection Impact Fee will not charge future development for any deficiencies in the service provided to existing development within each service area. **The tables used for calculating existing demand for fire stations are slightly different from those used for calculating existing demand for vehicles and equipment, so separate calculations are provided. However, the methodologies are the same.**

Costs to Improve Existing Facilities. Estimated costs to bring existing facilities up to the adopted level of service (if necessary) have been calculated in later in this chapter, as prescribed by A.R.S. 9-463.05, Section E.1. **However, it should be noted that no costs to upgrade, update, improve, correct, or replace any existing fire station, vehicle, or equipment have been included in the calculation of any Fire Protection Impact Fee.**

Analysis of Existing Level of Service—Fire Stations. In order to determine if existing fire stations provide the adopted level of service for Fire Protection in the service areas, the following must be calculated:

- The number of existing EDUs within each service area;
- The number of existing fire stations within each service area,
- The amount of land owned and used (or set aside) for a fire station within each service area;
- Any difference between the demand for fire stations from existing development and the actual fire stations currently provided.

Existing fire stations in each service area are provided in the following table:

Table 49. Existing Fire Stations and Land, by Service Area.

Station #	Address	Facility (sf)	Land (acres)	Service Area
38	5002 E. Warner-Elliot Loop, Phoenix, AZ 85044-3312	7,200	1.24	Ahwatukee
43	4110 E. Chandler Blvd., Phoenix, AZ 85048-8868	22,000	1.38	Ahwatukee
46	15402 S. Marketplace Way, Phoenix, AZ 85048-6228	4,200	0.35	Ahwatukee
49	3750 E. Dynamite Blvd., Phoenix, AZ 85331-2219	7,300	1.76	Northeast
52	21650 N. Tatum Blvd., Phoenix, AZ 85050-4249	15,130	1.38	Northeast
72	33027 North Cave Creek Road, Phoenix, AZ 85331	10,034	3.12	Northeast
48*	5230 W. Happy Valley Road, Phoenix, AZ 85310-2945	7,300	1.58	Northwest/ Deer Valley
56	3210 W. Canotia Place, Phoenix, AZ 85086-4027	14,977	2.01	Northwest/ Deer Valley
39	2276 W. Southern Avenue, Phoenix, AZ 85041-3756	4,200	0.23	Southwest
44*	7117 W. McDowell Road, Phoenix, AZ 85035-4537	7,396	1.11	Southwest
57	1660 W. Dobbins Road, Phoenix, AZ 85041	13,307	2.50	Southwest
58	4718 West Dobbins Road, Phoenix, AZ 85339	13,307	1.28	Southwest
59	1111 S. 65th Avenue, Phoenix, AZ 85043	20,711	3.50	Southwest

Station #	Address	Stations (sf)	Land (acres)	Service Area
38	5002 E. Warner-Elliot Loop, Phoenix, AZ 85044-3312	7,200	1.24	Ahwatukee
43	4110 E. Chandler Blvd., Phoenix, AZ 85048-8868	22,000	1.38	Ahwatukee
46	15402 S. Marketplace Way, Phoenix, AZ 85048-6228	4,200	0.35	Ahwatukee
74	19 th Avenue and Chandler Blvd., Phoenix	0	2.4	Ahwatukee
49	3750 E. Dynamite Blvd., Phoenix, AZ 85331-2219	7,300	1.76	Northeast
52	21650 N. Tatum Blvd., Phoenix, AZ 85050-4249	15,130	1.38	Northeast
72	33027 North Cave Creek Road, Phoenix, AZ 85331	10,034	3.12	Northeast
48*	5230 W. Happy Valley Road, Phoenix, AZ 85310-2945	7,300	1.58	Northwest / Deer Valley
56	3210 W. Canotia Place, Phoenix, AZ 85086-4027	14,977	2.01	Northwest / Deer Valley
55	26639 N. Black Canyon Hwy., Phoenix	0	3.19	Northwest / Deer Valley
39	2276 W. Southern Avenue, Phoenix, AZ 85041-3756	4,200	0.23	Southwest
44*	7117 W. McDowell Road, Phoenix, AZ 85035-4537	7,396	1.11	Southwest
57	1660 W. Dobbins Road, Phoenix, AZ 85041	13,307	2.50	Southwest
58	4718 West Dobbins Road, Phoenix, AZ 85339	0	1.28	Southwest
59	1111 S. 65th Avenue, Phoenix, AZ 85043	20,711	3.50	Southwest

Source: City of Phoenix Fire Department, derived from [Table 221](#). *Stations 44 and 48 are not physically located within impact fee service areas. Stations 39, 57, and 72 are located within service areas, but provide fire protection services to some areas located outside of the impact fee service areas. [Land has been acquired for stations 55, 58 and 74.](#)

It should be noted that Stations 44 and 48 are not physically located within an impact fee service area, but both do (and will continue) to provide fire protection service within the Southwest and Northwest service areas, respectively. Stations 39 and 57 are located within the Southwest service area, and Station 72 is located inside the Northeast service area, but all three provide fire protection services to some areas located outside of the impact fee service areas. **No adjustment is needed because the existing demand calculations will correct for any amount over- or under-served.**

The number of existing EDUs in each service area is calculated by taking the number of existing residential units, together with the existing square footage of each non-residential use category, and multiplying by the appropriate EDU Factor, as further detailed in Chapter 2, Service Units.

Table 50. Existing EDUs, by Service Area.

Service Areas	Resident Population	Total EDUs
Northwest/Deer Valley	40,977	15,662
Northeast	47,929	24,844
Southwest	121,692	55,181
Ahwatukee	77,442	36,392
Total, Service Areas	288,040	132,079

Source: Resident population from [Table 3](#); EDUs from [Table 15](#).

Then, using the adopted level of service and existing EDUs, it is possible to calculate the existing demand for fire stations, and determine any differences from the existing quantities currently provided in each service area, as shown in the following table:

Table 51. Existing Fire Station Demand and Provision, by Service Area.

Service Areas	Stations (Existing)		
	Actual (#)	Demand (#)	Difference
Northwest/Deer Valley	2.00	1.57	0.43
Northeast	3.00	2.48	0.52
Southwest	5.00	5.52	-0.52
Ahwatukee	3.00	3.64	-0.64
Total, Service Areas	13.00	13.21	-

Service Areas	Stations (Existing)		
	Actual (#)	Demand (#)	Difference
Northwest/Deer Valley	2.00	1.57	0.43
Northeast	3.00	2.48	0.52
Southwest	4.00	5.52	-1.52
Ahwatukee	3.00	3.64	-0.64
Total, Service Areas	12.00	13.21	

Source: Actual stations from [Table 49](#); demand calculated using the adopted level of service.

Land inventories were evaluated separately. This approach was recommended by the Impact Fee Ad Hoc Committee as part of the review of the draft IFP, and is appropriate for compliance with A.R.S. 9-463.05, as well as recognizing different land development pressures in each service area. Land values are not the same in each service area, and it may not be possible to purchase the desired acreage for each new station. The following table calculates the existing level of service in each service area. [A.R.S. 9-463.05 prohibits a municipality from increasing the “level of service in the service area” as a result of an IFP amendment. To accommodate this requirement, the Max LOS is provided in Table 52 from the originally adopted IFP and used in lieu of the Actual LOS for the purpose of calculating future demand for land in Table 57 for each service area.](#) It has been assumed that there is neither an excess nor shortfall of land for existing stations.

Table 52. Existing Land for Fire Stations, by Service Area.

Service Areas	Land (Existing)		
	Actual (acres)	# Existing Stations	Existing LOS (acres/station)
Northwest/Deer Valley	3.60	2.00	1.80
Northeast	6.26	3.00	2.09
Southwest	8.62	5.00	1.72
Ahwatukee	2.97	3.00	0.99
Total, Service Areas	21.44	13.00	--

Service Areas	Land (Existing)			
	Actual (acres)	# Existing Sites	Actual LOS (acres/site)	Max LOS* (acres/site)
Northwest/Deer Valley	6.78	3.00	2.26	1.80
Northeast	6.26	3.00	2.09	2.09
Southwest	8.62	5.00	1.72	1.72
Ahwatukee	5.37	4.00	1.34	0.99
Total, Service Areas	27.03	15.00	--	--

Source: [Actual land and number of existing fire station sites are](#) derived from [Table 49](#).

Analysis of Existing Level of Service—Fire Protection Vehicles and Equipment. In order to determine if existing fire protection vehicles and equipment provide the adopted level of service for Fire Protection in the service areas, the following must be calculated:

- The number of existing EDUs within each service area;
- The existing quantities of vehicles and equipment required to provide fire protection services within each service area;
- Any difference between the demand for vehicles and equipment from existing development and the actual vehicles and equipment currently provided.

Existing fire protection vehicles and equipment provided in each service area is summarized the following table:

Table 53. Existing Vehicles and Equipment, by Service Area.

Service Areas	Fire Engine	ALS Rescue	Brush Truck	Battalion Vehicle	Ladder	Ladder Tender	Utility/ Specialized	Tanker
Northwest/Deer Valley	2.00	0.00	2.00	0.00	0.00	0.00	0.00	1.00
Northeast	3.00	0.00	2.00	1.00	0.00	0.00	1.00	1.00
Southwest	6.00	2.00	2.00	0.00	0.00	0.00	1.00	1.00
Ahwatukee	3.00	3.00	1.00	1.00	1.00	1.00	1.00	0.00
Total, Service Areas	14.00	5.00	7.00	2.00	1.00	1.00	3.00	3.00

Source: City of Phoenix Fire Department, derived from [Table 222](#).

The number of existing EDUs in each service area was provided above in [Table 50](#), so using that data together with the adopted level of service, it is possible to calculate the existing demand for fire protection vehicles and equipment, as shown in the following table:

Table 54. Existing Demand for Vehicles and Equipment, by Service Area.

Service Areas	Fire Engine	ALS Rescue	Brush Truck	Battalion Vehicle	Ladder	Ladder Tender	Utility/ Specialized	Tanker
Northwest/Deer Valley	1.57	0.63	0.21	0.31	0.31	0.31	0.13	0.06
Northeast	2.48	0.99	0.33	0.50	0.50	0.50	0.20	0.10
Southwest	5.52	2.21	0.74	1.10	1.10	1.10	0.44	0.22
Ahwatukee	3.64	1.46	0.49	0.73	0.73	0.73	0.29	0.15
Total, Service Areas	13.21	5.28	1.76	2.64	2.64	2.64	1.06	0.53

Source: Quantities calculated by multiplying EDUs per service area shown in [Table 50](#) by the applicable level of service identified earlier in this chapter.

Any difference between the existing demand for vehicles and equipment and what is currently provided is shown in the following table. Please note that a **positive** figure means that the current provision **exceeds** the existing demand, and a **negative** figure means the current provision is **less than** the existing demand.

Table 55. Difference Between Existing Demand and Provision Vehicles and Equipment.

Service Areas	Fire Engine	ALS Rescue	Brush Truck	Battalion Vehicle	Ladder	Ladder Tender	Utility/ Specialized	Tanker
Northwest/Deer Valley	0.43	-0.63	1.79	-0.31	-0.31	-0.31	-0.13	0.94
Northeast	0.52	-0.99	1.67	0.50	-0.50	-0.50	0.80	0.90
Southwest	0.48	-0.21	1.26	-1.10	-1.10	-1.10	0.56	0.78
Ahwatukee	-0.64	1.54	0.51	0.27	0.27	0.27	0.71	-0.15

Total, Service Areas	0.79	-0.28	5.24	-0.64	-1.64	-1.64	1.94	2.47
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Source: Differences calculated by subtracting quantities shown in [Table 54](#) from corresponding quantities shown in [Table 53](#).

Analysis of Future Demand for Fire Protection Facilities in the Service Areas

One of the basic tenets of Arizona development impact fee statutes is that future development should not be charged for facilities whose demand originates from existing development. In other words, impact fees paid by future development should only pay for their proportionate share of future facilities.

However, another tenet is that if existing excess capacity has been provided within a service area, future development shall also not be charged for provision of any existing capacity for growth. This analysis calculates the demand for future fire protection facilities based upon the projected development in the ten-year period between 2015 and 2024 (as required by A.R.S 9-463.05, Section E.6), but then adjusts for any excess capacity already provided with existing development. Conversely, any shortfalls of facility provision to existing development are not added to the adjusted demand for fire protection facilities for the ten-year period 2015-2024.

As with existing demand, **the tables used for calculating future demand for fire stations are slightly different** from those used for calculating future demand for vehicles and equipment, **so separate calculations are provided.** However, **the methodologies are the same**, as well as the projected development figures for the ten-year planning period 2015-2024, which are provided in the following table:

Table 56. 2015-2024 Projected Additional Service Units.

Service Areas	Resident Population	Total EDUs
Northwest/Deer Valley	40,976	14,087
Northeast	60,264	22,476
Southwest	87,498	32,337
Ahwatukee	5,172	1,931
Total, Service Areas	193,910	70,831

Service Areas	Resident Population	Total EDUs
Northwest/Deer Valley	40,976	14,087
Northeast	60,264	22,476
Southwest	115,909	32,337
Ahwatukee	5,172	1,931
Total, Service Areas	222,321	70,831

Source: Resident population from [Table 5](#); EDUs from [Table 17](#).

Analysis of Future Demand 2015-2024—Fire Stations and Associated Land. Table 51 demonstrated that existing fire stations may independently exceed the demand from the adopted level of service, or may not provide the level of service. In the following table, the 2015-2024 demand is calculated. For fire station buildings, any of the excess amounts provided by existing development are “credited” toward the 2015-2024 demand for fire stations, since a portion of the future demand has already been provided. ~~For land, no existing amounts are credited, and t~~ The future demand for additional land is calculated by multiplying the 2015-2024 demand for fire stations by the existing Max LOS for land calculated for each service area in [Table 52](#). Existing land is credited toward the 2015-2024 demand for future land.

Table 57. 2015-2024 Adjusted Demand for Fire Stations and Associated Land, by Service Area.

Service Areas	Stations (2015-2024)		Adjusted Demand (#)	Land (acres)
	Demand (#)	Adjustment (#)		
Northwest/Deer Valley	1.41	-0.43	0.97	1.75
Northeast	2.25	-0.52	1.73	3.62
Southwest	3.23	0.00	3.23	5.56
Ahwatukee	0.19	0.00	0.19	0.19
Total, Service Areas	7.08	-0.95	6.13	11.13

Source: Quantities calculated by multiplying EDUs per service area shown in [Table 56](#) by the applicable level of service identified earlier in this chapter; adjustments from [Table 54](#); adjusted demand calculated by subtracting the difference from the 2015-2024 demand; demand for land calculated by multiplying the demand for fire stations by the existing level of service calculated in [Table 52](#).

Service Areas	Stations (#)			Land (Acres)		
	LOS Demand	Adjustment	Adjusted Demand	LOS Demand	Adjustment	Adjusted Demand
Northwest/Deer Valley	1.41	0.43	0.97	1.75	3.19	0.00
Northeast	2.25	0.52	1.73	3.62	0.00	3.62
Southwest	3.23	0.00	3.23	5.56	1.28	4.28
Ahwatukee	0.19	0.00	0.19	0.19	2.40	0.00
Total, Service Areas	7.08	0.95	6.13	11.13	6.87	7.90

Source: LOS demand for stations calculated by multiplying EDUs per service area from [Table 56](#) by the applicable level of service identified earlier in this chapter; Stations Adjustment from [Table 51](#); LOS demand for land calculated by multiplying the adjusted demand for fire stations by the Max level of service calculated in [Table 52](#); adjustments for land from [Table 49](#).

It should be noted any current shortfalls in provision of fire stations are not added to the 2015-2024 demand, since these shortfalls are not attributable to future development. These instances are each represented by a “0” in the “Adjustment” column in the preceding table.

Analysis of Future Demand 2015-2024—Vehicles and Equipment. In the following table, the 2015-2024 demand is calculated for each type of fire protection vehicle and equipment:

Table 58. 2015-2024 Demand for Vehicles and Equipment, by Service Area.

Service Areas	Fire Engine	ALS Rescue	Brush Truck	Battalion Vehicle	Ladder	Ladder Tender	Utility/ Specialized	Tanker
Northwest/ Deer Valley	1.41	0.56	0.19	0.28	0.28	0.28	0.11	0.06
Northeast	2.25	0.90	0.30	0.45	0.45	0.45	0.18	0.09
Southwest	3.23	1.29	0.43	0.65	0.65	0.65	0.26	0.13
Ahwatukee	0.19	0.08	0.03	0.04	0.04	0.04	0.02	0.01
Total, Service Areas	7.08	2.83	0.94	1.42	1.42	1.42	0.57	0.28

Source: Quantities calculated by multiplying EDUs per service area shown in [Table 56](#) by the applicable level of service identified earlier in this chapter.

However, [Table 55](#) demonstrated that existing provided fire protection vehicles and equipment may independently exceed the demand from the adopted level of service, or may not provide the level of service. The following table is derived from [Table 57](#), and shows the adjustment required so that any excess quantities provided by existing development are “credited” toward the 2015-2024 demand for fire protection vehicles and equipment, since a portion of the future demand has already been provided:

Table 59. Adjustments to 2015-2024 Demand for Vehicles and Equipment, by Service Area.

Service Areas	Fire Engine	ALS Rescue	Brush Truck	Battalion Vehicle	Ladder	Ladder Tender	Utility/ Specialized	Tanker
Northwest/ Deer Valley	-0.43	0.00	-1.79	0.00	0.00	0.00	0.00	-0.94
Northeast	-0.52	0.00	-1.67	-0.50	0.00	0.00	-0.80	-0.90
Southwest	-0.48	0.00	-1.26	0.00	0.00	0.00	-0.56	-0.78
Ahwatukee	0.00	-1.54	-0.51	-0.27	-0.27	-0.27	-0.71	0.00
Total, Service Areas	-1.43	-1.54	-5.24	-0.78	-0.27	-0.27	-2.07	-2.62

Source: Adjustments derived from [Table 55](#), where any excess provision is shown as a negative number, and any existing shortfall is shown as 0.

As with fire stations and land, any current shortfalls in provision are not added to the 2015-2024 demand, since these shortfalls are not attributable to future development. These instances are each represented by a 0 in the “Adjustment” column in the preceding table.

Each adjustment shown in the preceding table is then subtracted from the calculated demand shown in [Table 58](#), which results in the adjusted demand for fire protection vehicles and equipment, shown in the following table:

Table 60. Adjusted Demand 2015-2024 Vehicles and Equipment, by Service Area.

Service Areas	Fire Engine	ALS Rescue	Brush Truck	Battalion Vehicle	Ladder	Ladder Tender	Utility/ Specialized	Tanker
Northwest/ Deer Valley	0.97	0.56	0.00	0.28	0.28	0.28	0.11	0.00
Northeast	1.73	0.90	0.00	0.00	0.45	0.45	0.00	0.00
Southwest	2.75	1.29	0.00	0.65	0.65	0.65	0.00	0.00
Ahwatukee	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Total, Service Areas	5.65	2.76	0.00	0.93	1.38	1.38	0.11	0.01

Source: Differences calculated by subtracting quantities shown in [Table 59](#) from corresponding quantities shown in [Table 58](#).

Planned Fire Protection Facilities Costs by Service Area

The Fire Protection Facilities costs are based on the adjusted demand for fire stations, station land, vehicles, and equipment resulting from projected development in the ten-year planning period 2015-2024.

However, whether or not an existing fire station is expanded, or a new fire station is provided, must be determined at this point. As noted earlier, additional factors such as the geography of an area, existing roads, existing traffic, types of development, and the ability to meet a target call response time of 5 minutes can also influence the need for an additional station. A fire station is generally deemed necessary for construction when half of the planning standard (5,000 EDUs) have been constructed.

The City of Phoenix Fire Department anticipates that the following fire stations will be constructed using impact fees during the ten-year planning period 2015-2024:

- **Northwest/Deer Valley:** One new fire station.
- **Northeast:** Two new fire stations.
- **Southwest:** ~~Three~~ **Four** new fire stations.
- **Ahwatukee:** One new fire station.

Since these complete facilities exceed the actual demand created by projected future development in the ten-year planning period 2015-2024 (in some cases), the costs of the future planned facilities used to calculate impact fees will be adjusted so that projected future development will only pay its proportionate share of the costs, as determined in the previous section of this chapter.

Fire Station Costs. The development costs of a fire station are based upon the costs associated with construction of a prototype 14,000 square foot fire station only. Costs of associated land and fire protection vehicles and equipment are calculated separately.

For this analysis, a costs estimate based on Station 32 was developed for the City of Phoenix by 3D/I in April of 2006, with all costs projected to January, 2007. Most of the components used for these costs estimate per

square foot have not changed since the report was created, so the 3D/I estimates were instead updated with the Engineering News Record 20-City Building Cost Indices (ENR BCI), for the period January 2007 to April 2014.

In short, the “Assembly Cost” was calculated by taking the cost per square foot from the 3D/I estimate and subtracting the line items for “Engine”, “Rescue” and “Firefighting Tools” (since those costs have been calculated separately), updating it to 2014 using the ENR BCI, then multiplying by 14,000 square feet.

Table 61. Fire Station Cost Estimate, per Station.

Cost Component	Fire Station (per facility)
Assembly Cost	\$3,522,730
Construction Fee (6.30%)	\$221,932
Tax (5.27%)	\$185,648
Bond/Insurance (3.00%)	\$105,682
General Conditions (8.75%)	\$308,239
Design (8.00%)	\$281,818
Engineering (14.00%)	\$493,182
Construction Management (8.00%)	\$281,818
Total Cost	\$5,401,050

Source: Derived from 3D/I, “Construction Cost Analyses and Recommendations for the City of Phoenix,” April 2006. Assembly costs updated with ENR BCI for January 2007 to April 2014.

Fire Station Land Costs. Land costs can be quite variable within a service area, as well as the City as a whole. The City of Phoenix Real Estate department has provided a range of land values for each service area, based upon recent land purchases by the City. For the purposes of estimating total projected land costs for each service area, the midpoint of each range has been used, except for Ahwatukee, where recent land sales have indicated that the higher end of the range is most likely more appropriate.

Table 62. Estimated Land Costs, by Service Area.

Service Areas	Cost Range Estimate (acre)	Cost (acre)
Northwest/Deer Valley	\$200,000 - \$300,000	\$250,000
Northeast	\$200,000 - \$300,000	\$250,000
Southwest	\$100,000 - \$200,000	\$150,000
Ahwatukee	\$100,000 - \$200,000	\$175,000

Source: Land cost estimate from City of Phoenix Finance Department, Real Estate Division, February 2014.

Total Planned Costs, Fire Stations and Land. By applying the planned cost per fire station to the adjusted demand for fire stations shown in [Table 57](#), and the applicable land cost per acre to the adjusted demand for fire station land, we can determine planned costs for fire stations (with land) to be constructed in the ten-year planning period 2015-2024:

Table 63. Planned Costs for Fire Stations, including Land, 2015-2024, by Service Area.

Service Area	Fire Stations only			Fire Station Land			Total Planned Costs, Stations
	Adj Demand (#)	Station Cost	Planned Costs	Demand (ac)	Land cost (acre)	Planned Costs	
Northwest/Deer Valley	0.97	\$5,401,050	\$5,265,483	1.75	\$250,000	\$438,705	\$5,704,188
Northeast	1.73	\$5,401,050	\$9,354,618	3.62	\$250,000	\$904,970	\$10,259,588
Southwest	3.23	\$5,401,050	\$17,465,375	5.56	\$150,000	\$834,295	\$18,299,669
Ahwatukee	0.19	\$5,401,050	\$1,042,943	0.19	\$175,000	\$33,455	\$1,076,397
Total, Service Areas	6.13	-	\$33,128,419	11.13	-	\$2,211,424	\$35,339,843

Service Area	Fire Stations only			Fire Station Land			Planned Costs (Stations & Land)
	Adjusted Demand	Unit Station Cost	Planned Costs	Adjusted Demand	Unit Land Cost	Planned Costs	
Northwest/Deer Valley	0.97	\$5,401,050	\$5,265,483	0.00	\$250,000	\$0	\$5,265,483
Northeast	1.73	\$5,401,050	\$9,354,618	3.62	\$250,000	\$904,970	\$10,259,588
Southwest	3.23	\$5,401,050	\$17,465,375	4.28	\$150,000	\$642,295	\$18,107,669
Ahwatukee	0.19	\$5,401,050	\$1,042,943	0.00	\$175,000	\$0	\$1,042,943
Total, Service Areas	6.13		\$33,128,419	7.90		\$1,547,265	\$34,675,684

Source: Adjusted demand for fire stations and land from Table 57; planned costs calculated by multiplying adjusted demand by costs per unit from Table 61 and Table 62; total planned costs is sum of planned costs for stations and land.

Fire Protection Vehicle and Equipment Costs. The costs for equipment are based upon information provided by the City of Phoenix Fire Department, who has confirmed that estimated used in the previous IFP update are still valid, due to a very competitive fire protection equipment market. The costs are as follows:

Table 64. Fire Protection Vehicle Costs, by Type.

Engine	ALS Rescue	Brush Truck	Battalion Vehicle	Ladder	Ladder Tender	Utility/ Specialized	Tanker
\$557,368	\$189,012	\$104,056	\$110,000	\$890,497	\$347,466	\$470,500	\$189,156

Source: City of Phoenix Fire Department, April, 2014.

To determine the planned costs for vehicles and equipment by service area, a slightly different methodology is used. Fire station vehicles and equipment are often utilized over areas much larger than the service areas they are stationed in, as demonstrated by some of the planning standards utilized to calculate demand. In addition, they are sometimes moved between stations. Therefore, the planned costs for each service area aggregates the proportionate share of the costs of the eight types of equipment included in this IFP, **with the intent of allowing the Fire Department flexibility to purchase whichever of the eight equipment types it**

deems necessary at the time of acquisition. To do this, the adjusted demand for each vehicle and equipment type is multiplied by the unit cost, then summed for each service area, as shown in the following table:

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Table 65. Planned Costs, Fire Protection Vehicles and Equipment, by Service Area.

Service Areas	Fire Engine	ALS Rescue	Brush Truck	Battalion Vehicle	Ladder	Ladder Tender	Utility/ Spec	Tanker	Total
Northwest/Deer Valley	\$543,378		\$0	\$30,991	\$250,889	\$97,895	\$53,023	\$0	\$976,177
Northeast	\$965,361	\$169,929	\$0	\$0	\$400,296	\$156,193	\$0	\$0	\$1,691,780
Southwest	\$1,533,765	\$244,483	\$0	\$71,141	\$575,920	\$224,720	\$0	\$0	\$2,650,030
Ahwatukee	\$107,628	\$0	\$0	\$0	\$0	\$0	\$0	\$1,461	\$109,089
Total, Service Areas	\$3,150,132	\$414,413	\$0	\$102,133	\$1,227,105	\$478,808	\$53,023	\$1,461	\$5,427,076

Source: Values calculated by multiplying adjusted demand from Table 60 times the unit cost shown in Table 64.

Outstanding Debt in the Service Areas. Bond debt in the service areas is primarily from existing fire station facilities meant to serve both existing and future development through 2024, and were included in previous Infrastructure Financing Plans. It is therefore appropriate to charge a proportionate share of this debt to future development. The following table outlines the portion of outstanding debt attributable to projected 2015-2024 development; as follows:

Table 1. Outstanding Fire Debt, by Service Area.

Service Areas	Outstanding Debt	2024 EDUs	Outstanding Debt per 2024 EDU	Outstanding Debt for Projected EDUs 2015-2024
Northwest/Deer Valley	\$2,220,499	29,749	\$75	\$1,051,470
Northeast	\$2,884,161	47,320	\$61	\$1,369,916
Southwest	\$4,314,363	87,519	\$49	\$1,594,094
Ahwatukee	\$1,880,221	38,323	\$49	\$94,740

Source: Outstanding debt calculated from total debt funding of facilities for each service area (as shown in Table 223) multiplied by % of total debt still outstanding, as calculated in Table 71. Debt per 2024 EDU calculated by dividing outstanding debt by 2024 EDUs (Table 19), and debt per projected EDU = debt per 2024 EDU x projected EDUs (Table 56).

Total Planned Costs for Fire Protection, by Service Area. The following table calculates the total planned costs for the Fire Protection Impact Fee in each service area:

Table 67. Total Fire Protection Planned Costs, by Service Area.

Service Areas	Station/Land Costs	Vehicle/ Equip Costs	Outstanding Debt	Total Planned Costs, Fire
Northwest/Deer Valley	\$5,704,188	976,177	\$1,051,470	\$7,731,835
Northeast	\$10,259,588	1,691,780	\$1,369,916	\$13,321,284
Southwest	\$18,299,669	2,650,030	\$1,594,094	\$22,543,794
Ahwatukee	\$1,076,397	109,089	\$94,740	\$1,280,226
Totals, Service Areas	\$35,339,843	5,427,076	\$4,110,219	\$44,877,139

Service Areas	Station & Land Costs	Vehicle / Equip Costs	Outstanding Debt	Total Planned Costs, Fire
Northwest/ Deer Valley	\$5,265,483	976,177	\$1,051,470	\$7,293,130
Northeast	\$10,259,588	1,691,780	\$1,369,916	\$13,321,284
Southwest	\$18,107,669	2,650,030	\$1,594,094	\$22,351,794
Ahwatukee	\$1,042,943	109,089	\$94,740	\$1,246,771
Totals, Service Areas	\$34,675,684	5,427,076	\$4,110,219	\$44,212,979

Source: Station/land costs from [Table 63](#); vehicle and equipment costs from [Table 65](#); outstanding debt from [Table 66](#).

Gross Impact Fee per EDU

A *gross impact fee* is the calculated fee per EDU using only the planned costs and any existing impact fee balances and outstanding credits for developer-provided facilities. A gross impact fee does not include any credit for alternative revenues, or *offsets*, which will be calculated in the next section of this Chapter.

Per the requirements of A.R.S. 9-463.05, the gross impact fee is calculated using only the planned costs and projected growth for the ten-year planning period 2015-2024, minus any existing impact fee balances, as shown in the following table:

Table 68. Fire Protection Gross Impact Fee per EDU, by Service Area.

Service Areas	Total Planned Costs	(-) Impact Fee Balance	Adjusted Planned Costs	Projected EDUs	Gross Impact Fee per EDU
Northwest/Deer Valley	\$7,731,835	\$502,746	\$7,229,089	14,087	\$513
Northeast	\$13,321,284	\$797,486	\$12,523,798	22,476	\$557
Southwest	\$22,543,794	\$1,202,794	\$21,341,000	32,337	\$660
Ahwatukee	\$1,280,226	\$181,841	\$1,098,385	1,931	\$569

Service Areas	Total Planned Costs	(-) Impact Fee Balance	Adjusted Planned Costs	Projected EDUs	Gross Impact Fee per EDU
Northwest/Deer Valley	\$7,293,130	\$502,746	\$6,790,384	14,087	\$482
Northeast	\$13,321,284	\$797,486	\$12,523,798	22,476	\$557
Southwest	\$22,351,794	\$1,202,794	\$21,149,000	32,337	\$654
Ahwatukee	\$1,246,771	\$181,841	\$1,064,930	1,931	\$551

Source: Total planned costs from [Table 67](#), projected EDUs 2015-2024 from [Table 56](#).

The “Impact Fee Balance” values reflect the current available impact fee fund balances for each service area as of April 2014.

There are no outstanding developer credits for any Fire Protection Impact Fee.

Offsets

Before determining an actual impact fee schedule, **offsets** must be taken into consideration, in accordance with A.R.S 9-463.05, Section E.7. An offset is applied for any alternative revenue dedicated to paying for a portion of the same improvements funded by impact fees, in order to avoid requiring new development to pay more than its proportionate share of facility costs. For example, the City also funds Fire Protection facilities through municipal bonds, and impact fee calculations should be adjusted to account for future tax payments that will retire outstanding debt used to develop existing capital facilities.

Secondary Property Tax (Debt) Offset. The Fire Protection Impact Fee calculations include an offset to reflect the share of growth-related fire protection facilities that have been funded through bonds that will be repaid through the secondary property tax.

In this update, this offset is based on the existing City-wide Fire Protection service units and the outstanding city-wide debt for Fire Protection. **However, the offset is based only upon debt-funded items which could alternatively be funded by impact fees, and does not include items which cannot be funded by impact fees per the provisions of A.R.S 9-463.05** (such as training facilities, facility renovation and/or replacement, and art).

These items are summed in the following tables, and then divided by the number of City-wide existing EDUs (with some adjustments, as explained below). This approach avoids double payment issues and creates a uniform offset per EDU for all land uses.

Table 69. Debt-Funded Items Included in Offset Calculations.

Project	Bond Issue	Service Area	Debt Funding
Fire Station #44	1988 Fire Protection Bonds		\$1,330,898
Fire Station # 30	1988 Fire Protection Bonds		\$2,190,926
Fire Station #26 Land	1988 Fire Protection Bonds		\$319,485
Fire Station #28 Land	1988 Fire Protection Bonds		\$75,565
Fire Station #43	2001 Fire Protection	Ahwatukee	\$4,532,929
Fire Station #52	2001 Fire Protection	Northeast	\$1,826,949
New Station 50 at 35th Av & Beardsley Rd	2001 Fire Protection		\$5,649,698
New Station 54 at 107th Ave & Camelback	2001 Fire Protection		\$5,143,079
New Station 32 at 40th St and Baseline Rd	2001 Fire Protection		\$5,637,027
FS62 @ 99th Ave and Lower Buckeye	2001 Fire Protection	Southwest	\$447,641
New Station 57 at 15 Ave & Dobbins Rd	2001 Fire Protection	Southwest	\$4,882,799
Fire Station 55 at I-17 & Jomax Rd Land	2001 Fire Protection		\$1,330,741
Fire Station 63 - 7th St/Thunderbird Land	2001 Fire Protection		\$2,416
New Station 56 at I-17 & Carefree Hwy	2001 Fire Protection	Northwest/Deer Valley	\$4,840,119
New Station 72-N. Desert View Village	2006 GO Fire Protection (Em. Mgmt.)	Northeast	\$4,613,159
New Station 55-Deer Valley/N Gateway	2006 GO Fire Protection (Em. Mgmt.)	Northwest/Deer Valley	\$513,170
New Station 59-Estrella Village	2006 GO Fire Protection (Em. Mgmt.)	Southwest	\$5,070,838
Fire Station 55 at I-17 & Jomax Rd Land	2006 GO Fire Protection (Em. Mgmt.)	Northeast	\$513,170

Dispatch & Emergency Operations Center	2006 GO Fire Protection (Em. Mgmt.)	\$11,433,149
Fire Communications System	2006 GO Fire Protection (Em. Mgmt.)	\$12,395,561
Total Impact-Fee Eligible Existing Debt-Funded Fire Protection Facilities		\$72,749,318

Source: Items from [Table 223](#), which are not prohibited from being funded by A.R.S. 9-463.05.

A summary of the outstanding Fire Protection-related debt issues are shown in the following table:

Table 70. Total Fire Protection Debt, Original and Outstanding Amounts, by Bond Issue.

Series	Authorized Year	Original Principal	Bonds Outstanding
1995A	9999	\$610,000	\$170,000
2004	2001	\$23,000,000	\$440,000
2005B	2001	\$17,000,000	\$11,170,000
2007A	2001 / 2006	\$21,200,000	\$21,200,000
2007B	9999	\$300,000	\$300,000
2009A	2001 / 2006	\$31,600,000	\$31,600,000
2009B	2001 / 2006	\$7,500,000	\$7,500,000
2012A	2001 / 2006	\$16,400,000	\$16,400,000
2012C	9999	\$14,705,000	\$14,705,000
Subtotal, Fire-Only Debt		\$132,315,000	\$103,485,000
2004	2001	\$33,000,000	\$630,000
2004R	9999	\$7,300,000	\$1,960,000
2005B	2001	\$30,000,000	\$20,000,000
2007A	2001	\$4,300,000	\$4,300,000
2007B	9999	\$21,110,000	\$21,110,000
2009A	2001 / 2006	\$3,210,000	\$3,210,000
2009B	2001	\$1,975,000	\$1,975,000
2012A	2001 / 2006	\$2,600,000	\$2,600,000
2012C	9999	\$33,805,000	\$33,805,000
Subtotal, Fire/Police/Tech Debt		\$137,300,000	\$89,590,000
Total Fire Protection-Related Debt		\$269,615,000	\$193,075,000

Source: COP Finance Department, Treasury and Debt Management Division, April 2014.

In order to calculate a debt offset per EDU, some additional calculations are required, mostly because some of the Fire Protection Debt was combined with Police and technology bond issues. The calculations that result in a debt offset per EDU are shown in the following table:

Table 71. Fire Protection Debt Offset per EDU.

Total Cost of Debt-Funded Fire Improvements	\$145,110,215
- Original Fire-Only Debt	\$132,315,000
Fire Portion of Original Fire/Police/Tech Debt	\$12,795,215
÷ Total Original Fire/Police/Tech Debt	\$137,300,000
Fire % of Fire/Police/Tech Debt	9.32%
x Outstanding Fire/Police/Tech Debt	\$89,590,000
Fire Portion of Outstanding Fire/Police/Tech Debt	\$8,349,041
+ Outstanding Fire-Only Debt	\$103,485,000
Total Outstanding Fire Protection-Related Debt	\$111,834,041
% Outstanding Fire Protection-Related Debt	41.48%
Total Original Debt for Impact-Fee Eligible Items	\$72,749,318
x % Outstanding Fire-Related Debt	41.48%
Total Outstanding Debt for Impact-Fee Eligible Items	\$30,175,807
÷ Existing City-wide EDUs	803,497
Fire Protection-Related Debt Offset per EDU	\$38

Source: Debt-funded improvements from [Table 223](#); fire-only debt, original debt, and outstanding debt from [Table 70](#); original debt for Impact-Fee eligible items from [Table 69](#).

Potential Net Impact Fee Schedules

The potential Fire Protection net impact fee schedule for each service area is calculated by subtracting the offset(s) per EDU from the gross impact fee per EDU. These calculations are shown in the following table:

Table 72. Potential Net Impact Fee, by Service Area, Fire Protection.

Service Areas	Gross Impact Fee per EDU	Offset per EDU	Net Impact Fee per EDU
Northwest/Deer Valley	\$513	\$38	\$475
Northeast	\$557	\$38	\$519
Southwest	\$660	\$38	\$622
Ahwatukee	\$569	\$38	\$531

Service Areas	Gross Impact Fee per EDU	Offset per EDU	Net Impact Fee per EDU
Northwest/Deer Valley	\$482	\$38	\$444
Northeast	\$557	\$38	\$519
Southwest	\$654	\$38	\$616
Ahwatukee	\$551	\$38	\$513

Source: Gross impact fee per unit from [Table 68](#); offset from [Table 71](#).

These figures are then multiplied by the applicable EDU factor to determine the potential net fee per type of use, as shown in the following table:

Table 73. Potential Net Impact Fee, by Use and Service Area, Fire Protection.

Service Areas	SF (per unit)	MF (per unit)	Com / Ret (per 1000 sf)	Office (per 1000 sf)	Ind / WH (per 1000 sf)	Pub / Inst (per 1000 sf)
EDU Factor	1.00	0.65	0.78	0.71	0.28	0.69
Northwest/Deer Valley	\$475	\$309	\$371	\$337	\$133	\$328
Northeast	\$519	\$337	\$405	\$368	\$145	\$358
Southwest	\$622	\$404	\$485	\$442	\$174	\$429
Ahwatukee	\$531	\$345	\$414	\$377	\$149	\$366

Service Areas	SF (per unit)	MF (per unit)	Com / Ret (per 1000 sf)	Office (per 1000 sf)	Ind / WH (per 1000 sf)	Pub / Inst (per 1000 sf)
EDU Factor	1.00	0.65	0.78	0.71	0.28	0.69
Northwest/Deer Valley	\$444	\$289	\$346	\$315	\$124	\$306
Northeast	\$519	\$337	\$405	\$368	\$145	\$358

Southwest	\$616	\$400	\$480	\$437	\$172	\$425
Ahwatukee	\$513	\$333	\$400	\$364	\$144	\$354

Source: Net impact fee per EDU from [Table 72](#); EDU factors from [Table 11](#) and [Table 13](#); net fee per unit calculated by multiplying the net fee per EDU by the applicable EDU factor.

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Summary of Planned Improvements and Costs, 2015-2024

A summary of the planned improvements and costs for the ten-year planning period 2015-2024 for the impact fee service areas are shown in the following tables. The tables provide a list of planned fire stations, vehicle, equipment, and other expenditures that are eligible to be funded by the Fire Protection impact fee collections, as calculated within this Chapter. **It must be noted that unless an item is described as *proportionate*, the full costs of anticipated items eligible to be funded by impact fees are provided. Other planned facilities NOT funded by impact fees are not shown.**

The “Anticipated Need for Alternative Funding” represents the amount that will not be collected through impact fees, due to required offsets and restrictions of A.R.S. 9-463.05. Therefore, additional funding source(s) will be required if to provide all facilities listed in each table. **Impact fee collections alone cannot fully fund all of the impact-fee eligible items.**

Table 74. Planned Improvements and Costs, 2015-2024, Northwest Service Area.

Facility	Quantity	Cost	Total Costs
New Fire Station (Construction)	1	\$5,401,050	\$5,401,050
Land (acres)	1.75	\$250,000	\$438,705
Vehicles and Equipment	varies	\$976,177	\$976,177
Proportionate Bond Debt for Northwest Service Area			\$1,130,462
		Subtotal	\$7,946,394
		—Anticipated Net Impact Fee Revenue, 2015-2024	\$6,691,325
		— Existing Impact Fee Balance	\$502,746
		+ Outstanding Credits	\$0
		Anticipated Need for Alternative Funding	\$752,323

Facility	Unit Cost	2015-2024 Quantity	2015-2024 Planned Cost
Fire Stations			
Future Locations to be determined	\$5,401,050	0.00	\$0
Fire Station #55 (I-17 Fwy & Jomax Road)	\$5,401,050	0.97	\$5,265,483
Land Acquisition (acres)	\$250,000	0.00	\$0
Vehicles and Equipment	See Table 65		\$976,177
Debt (EDUs)	\$75	14,087	\$1,051,470
Total 2015-2024 Infrastructure Improvement Plan Cost			\$7,293,130
- Anticipated Net Impact Fee Revenue, 2015-2024			\$6,254,628
- Existing Impact Fee Balance			\$502,746

+ Outstanding Credits	\$0
Anticipated Need for Alternative Funding	\$535,756

Source: Fire station demand from [Table 57](#); fire station cost from [Table 61](#); land to acquire from [Table 57](#); land costs from [Table 62](#); vehicle and equipment demand from [Table 60](#); vehicle and equipment cost from [Table 65](#); debt from [Table 68](#); existing impact fee balance ([Table 69](#)) and outstanding credits from COP Planning & Development, April 2014.

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Table 75. Planned Improvements and Costs, 2015-2024, Northeast Service Area.

Facility	Quantity	Cost	Total Costs
New Fire Station (Construction)	2	\$5,401,050	\$10,802,100
Land (acres)	3.62	\$250,000	\$904,970
Vehicles and Equipment	varies	\$1,691,780	\$1,691,780
Proportionate Bond Debt for Northeast Service Area			\$1,798,160
Subtotal			\$15,197,010
—Anticipated Net Impact Fee Revenue, 2015-2024			\$11,665,044
—Existing Impact Fee Balance			\$797,486
+ Outstanding Credits			\$0
Anticipated Need for Alternative Funding			\$2,734,480

Facility	Unit Cost	2015-2024 Quantity	2015-2024 Planned Cost
Fire Stations			
Future Locations to be determined	\$5,401,050	1.73	\$9,354,618
Land Acquisition (acres)	\$250,000	3.62	\$904,970
Vehicles and Equipment	See Table 65		\$1,691,780
Debt (EDUs)	\$61	22,476	\$1,369,916
Total 2015-2024 Infrastructure Improvement Plan Cost			\$13,321,284
- Anticipated Net Impact Fee Revenue, 2015-2024			\$11,665,044
- Existing Impact Fee Balance			\$797,486
+ Outstanding Credits			\$0
Anticipated Need for Alternative Funding			\$858,754

Source: Fire station demand from [Table 57](#); fire station cost from [Table 61](#); land to acquire from [Table 57](#); land costs from [Table 62](#); vehicle and equipment demand from [Table 60](#); vehicle and equipment cost from [Table 65](#); debt from [Table 68](#); existing impact fee balance ([Table 69](#)) and outstanding credits from COP Planning & Development, April 2014.

Table 76. Planned Improvements and Costs, 2015-2024, Southwest Service Area.

Facility	Quantity	Cost	Total Costs
New Fire Station (Construction)	3	\$5,401,050	\$16,203,149
Land (acres)	5.56	\$150,000	\$834,295
Vehicles and Equipment	varies	\$109,089	\$109,089
Proportionate Bond Debt for Southwest Service Area			\$3,325,722

	Subtotal	\$20,472,255
	--Anticipated Net Impact Fee Revenue, 2015-2024	\$20,113,614
	--Existing Impact Fee Balance	\$1,202,794
	+ Outstanding Credits	\$0
	Anticipated Need for Alternative Funding	\$0

Facility	Unit Cost	2015-2024 Quantity	2015-2024 Planned Cost
Fire Stations			
Future Locations to be determined	\$5,401,050	1.23	\$6,643,291
Fire Station #62 (99th Ave & Lower Buckeye)	\$5,401,050	1.00	\$5,401,050
Fire Station #58 (4718 W. Dobbins Road)	\$5,401,050	1.00	\$5,401,050
Land Acquisition (acres)	\$150,000	4.28	\$642,295
Vehicles and Equipment	See Table 65		\$2,650,030
Debt (EDUs)	\$49	32,337	\$1,594,094
Total 2015-2024 Infrastructure Improvement Plan Cost			\$22,331,810
- Anticipated Net Impact Fee Revenue, 2015-2024			\$19,919,592
- Existing Impact Fee Balance			\$1,202,794
+ Outstanding Credits			\$0
Anticipated Need for Alternative Funding			\$1,209,424

Source: Fire station demand from [Table 57](#); fire station cost from [Table 61](#); land to acquire from [Table 57](#); land costs from [Table 62](#); vehicle and equipment demand from [Table 60](#); vehicle and equipment cost from [Table 65](#); debt from [Table 68](#); existing impact fee balance ([Table 69](#)) and outstanding credits from COP Planning & Development, April 2014.

Table 77. Planned Improvements and Costs, 2015-2024, Ahwatukee Service Area.

Facility	Quantity	Cost	Total Costs
New Fire Station (Construction)	1	\$5,401,050	\$5,401,050
Land (acres)	0.19	\$175,000	\$33,455
Vehicles and Equipment	varies	\$2,650,030	\$2,650,030
Proportionate Bond Debt for Ahwatukee Service Area			\$1,456,274
		Subtotal	\$9,540,808
		--Anticipated Net Impact Fee Revenue, 2015-2024	\$1,025,361
		--Existing Impact Fee Balance	\$181,841
		+ Outstanding Credits	\$0
		Anticipated Need for Alternative Funding	\$8,333,606

Facility	Unit Cost	2015-2024 Quantity	2015-2024 Planned Cost
Fire Stations			
Future Locations to be determined	\$5,401,050	0.00	\$0
Fire Station #74 (19th Ave & Chandler Blvd)	\$5,401,050	0.19	\$1,026,199
Land Acquisition (acres)	\$175,000	0.00	\$0
Vehicles and Equipment	See Table 65		\$109,089
Debt (EDUs)	\$49	1,931	\$94,740
Total 2015-2024 Infrastructure Improvement Plan Cost			\$1,230,028
- Anticipated Net Impact Fee Revenue, 2015-2024			\$990,603
- Existing Impact Fee Balance			\$181,841
+ Outstanding Credits			\$0
Anticipated Need for Alternative Funding			\$57,584

Source: Fire station demand from [Table 57](#); fire station cost from [Table 61](#); land to acquire from [Table 57](#); land costs from [Table 62](#); vehicle and equipment demand from [Table 60](#); vehicle and equipment cost from [Table 65](#); debt from [Table 68](#); existing impact fee balance ([Table 69](#)) and outstanding credits from COP Planning & Development, April 2014.