



ADOA BUILDING SYSTEM **CAPITAL IMPROVEMENT PLAN**

FISCAL YEAR 2021

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PREPARED BY

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General Services Division

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EXECUTIVE SUMMARY

ADOA Building System Capital Project Recommendations

Agency	Location	Project Name	Project Category	Funds Source	FY 2021
ADOA	Capitol Mall	Elevator Modernization for 1616 W Adams, 1200 W Washington and 1535 W Jefferson	Building Services	General Fund	\$ 2,200,000
ADOA	Capitol Mall	Air Handler Upgrades for Senate, House and Executive Tower Phase II	Building Services	General Fund	\$ 4,100,000
Corrections	ASPC Lewis/Yuma	Replace Obsolete Fire Alarm and Suppression Systems, Cell Doors and Locks, and HVAC Systems, Complete Phase I	Fire & Life Safety	General Fund	\$ 27,500,000
Public Safety	Phoenix	South Mountain District Office	New Construction	Other Funds	\$ 6,000,000
Public Safety	Statewide	Modular Housing and Office Replacements	New Construction	General Fund	\$ 2,800,000
Grand Total Recommendations					\$ 42,600,000

FY 2021 Building Renewal Formula

Agency	2021 Formula
ADOA	ADOA \$ 49,087,906
Dedicated Funds	Corrections, State Department of \$ 26,793,820
	Game and Fish Department, Arizona \$ 1,157,929
	Lottery Commission, Arizona State \$ 146,723
Dedicated Funds Total	\$ 28,098,472
Grand Total	\$77,186,378

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ADOA BUILDING SYSTEM AND CAPITAL IMPROVEMENT PLAN

The Arizona Department of Administration (ADOA) Building System was established pursuant to A.R.S. § 41-793, concurrent with the Arizona Board of Regents (ABOR) Building System and the Arizona Department of Transportation (ADOT) Building System. The ADOA Building System is the largest of the three and includes buildings owned by 23 State agencies, boards, and commissions. Each Building System is responsible for submitting a Capital Improvement Plan (CIP) to the Governor no later than October 15 of each year. The CIP includes proposals for State spending on land acquisition, capital projects, energy systems, energy management systems, and building renewal.

All agencies in the ADOA Building System are required to provide an annual agency CIP to ADOA regardless of an agency's appropriated or nonappropriated monies sources, including dedicated or non-dedicated capital and building renewal funds sources.

Building System Inventory

As of June 30, 2019, the Building System has an inventory of 4,500 structures comprised of 23,734,690 Gross Square Feet (GSF) and a calculated replacement value of \$5,145,299,122 (see Table 1: ADOA Building System Inventory–FY 2019). ADOA revises its Building System Inventory each year to include structure acquisitions and deletions as reported by Building System agencies, escalations or de-escalations of structure replacement

values, and two fiscal years of forecasted building renewal requirements. The inventory also provides Marshall & Swift Construction Class, Construction Year, fire suppression/sprinkler system status, Facility Occupancy Category, and other allied information.

As staffing and new construction inspections permit, ADOA General Services Division, Planning & Construction Services reports on the condition, maintenance, and utilization of buildings inspected during the prior fiscal year on an approximate schedule of 50% of buildings within the first two years and 50% of buildings in the following two years of the four-year cycle pursuant to A.R.S. § 41-793. Hiring and retaining staff to comply with this statutory requirement is challenging.

Many of the Building System's structures and major building components have exceeded their useful lives or succumbed to the effects of deferred maintenance. There are widespread deficiencies in fire and life safety systems, roofs, HVAC, electrical, plumbing, control systems, parking lots, and interior finishes. A chronic lack of funding for basic routine and capital maintenance is the genesis of the poor condition of the Building System.

Building inspection reports are available for review by contacting ADOA Planning & Construction Services at 602-542-4438.

Table I–ADOA Building System Inventory Fiscal Year Ending June 30, 2019

Agency	Number of Structures	2019 Replacement Value	FY 2021 Building Renewal	FY 2022 Building Renewal	Gross Square Feet
Administration, Arizona Department of	59	\$ 868,801,599	\$ 13,864,277	\$ 14,027,876	4,474,847
ADOA, Legislature	7	\$ 80,153,155	\$ 2,035,211	\$ 2,059,227	303,388
Agriculture, Arizona Department of	5	\$ 724,027	\$ 14,203	\$ 14,371	10,154
AHCCCS	3	\$ 35,179,960	\$ 616,257	\$ 623,529	164,080
Corrections, State Department of	1,524	\$ 2,067,890,332	\$ 26,793,820	\$ 27,109,987	8,792,214
Deaf and the Blind, Arizona State Schools for the	49	\$ 128,996,234	\$ 2,119,832	\$ 2,144,846	509,799
Economic Security, Department of	109	\$ 144,099,017	\$ 3,409,194	\$ 3,449,422	664,154
Emergency and Military Affairs, Department of	550	\$ 568,092,539	\$ 8,966,410	\$ 9,072,214	3,707,928
Environmental Quality, Arizona Department of	1	\$ 2,017,373	\$ 48,522	\$ 49,095	4,504
Exposition & State Fair Board, Arizona	26	\$ 112,572,306	\$ 2,862,115	\$ 2,895,888	681,147
Forestry and Fire Management, Arizona Department of	4	\$ 1,884,948	\$ 35,731	\$ 36,152	12,206
Game and Fish Department, Arizona	482	\$ 94,402,848	\$ 1,157,929	\$ 1,171,592	859,189
Health Services, Department of	58	\$ 284,167,450	\$ 4,110,907	\$ 4,159,416	812,004
Historical Society of Arizona, Prescott	21	\$ 17,436,824	\$ 343,257	\$ 347,308	63,238
Historical Society, Arizona	23	\$ 53,963,281	\$ 1,135,528	\$ 1,148,927	208,572
Judiciary, Arizona Supreme Court	1	\$ 71,843,982	\$ 1,051,833	\$ 1,064,245	257,207
Juvenile Corrections, Department of	51	\$ 69,421,506	\$ 1,337,557	\$ 1,353,340	225,334
Lottery Commission, Arizona State	2	\$ 8,768,975	\$ 146,723	\$ 148,454	47,600
Parks Board, Arizona State	1,071	\$ 135,710,985	\$ 2,280,414	\$ 2,307,322	794,384
Pioneers Home, Arizona	10	\$ 14,162,509	\$ 349,085	\$ 353,204	66,140
Power Authority, Arizona	3	\$ 8,726,288	\$ 66,936	\$ 67,726	12,324
Public Safety, Department of	401	\$ 151,167,150	\$ 2,572,243	\$ 2,602,595	656,700
Veterans Services, Department of	40	\$ 225,115,835	\$ 1,868,392	\$ 1,890,439	407,577
Grand Total	4,500	\$ 5,145,299,122	\$ 77,186,378	\$ 78,097,177	23,734,690

BUILDING RENEWAL & CAPITAL OUTLAY STABILIZATION FUND

A.R.S. § 41-790 defines building renewal as “...major activities that involve the repair or reworking of a building and the supporting infrastructure that will result in maintaining a building’s expected useful life. Building renewal does not include new building additions, new infrastructure additions, landscaping and area beautification, routine preventative maintenance except as provided in section 41-793.01, subsection D, or demolition and removal of a building...” A.R.S. § 41-793.01(D) directs that ADOA may use up to 8% of the amount appropriated for routine preventative maintenance. ADOA is using this authority to incrementally and strategically increase its contract spend to invest in preventative maintenance on its large critical mechanical infrastructure.

Building Renewal Formula

A.R.S. § 41-793 directs ADOA to 1) determine the amount of appropriation required to fund building renewal on an annual basis according to a formula approved by the legislature; and 2) allocate building renewal monies within the Building System.

A.R.S. § 41-793.01 directs the Legislature’s Joint Committee on Capital Review (JCCR) to develop and approve a uniform formula for computing the annual building renewal funding needs of the State’s building systems. The basis for the building renewal formula twice studied and approved by JCCR is the Sherman-Dergis Formula developed in 1981 at the University of Michigan. In simple terms, the Sherman-Dergis Formula estimates at a high level the funding requirements for major maintenance over time. The basic premises are:

The formula to determine the annual appropriation required for building renewal for each building is based on construction costs and calculated as follows: Two-Thirds Building Value (BV) multiplied by the Building Age (BA), then divided by the Life Expectancy of the structure (n) or otherwise expressed as

$$\frac{2/3(BV)BA}{n}$$

The formula reflects the current year building replacement value by updating the original construction cost, using a national building cost index. ADOA uses the building cost index from the Marshall & Swift Valuation Service to reflect its current year building replacement value.

The Age Factor = Building Age/Life Expectancy of the building (n). For example, the ADOA Life Expectancy is 50 years, therefore $n=1,275$, which is derived by progressively compounding by addition, $1+2+3+4+5...49+50$. Building renewal, on average, should cost no more than two-thirds of the cost of new construction, thus creating the building renewal constant multiplier of $2/3$.

The formula recognizes that building renewal should cost less than building replacement and that older buildings require more building renewal (capital funding) than newer buildings. To accomplish this, ADOA incorporates a building’s life expectancy of 50 years into its age factor. The annual formula does not include the past years’ accrual of deferred maintenance.

Building Renewal Funding and Deferred Maintenance

The Legislature fully funded the Building System’s Building Renewal Formula only once in the last 30 fiscal years (see Table 2: Building Renewal Allocation History & Deferred Maintenance Accrual).

Full funding of the Building Renewal Formula is a reference to the cumulative amount of annual appropriation required to sustain a given year’s *current* facilities conditions, assuming all prior annual major maintenance requirements are completed.

At this point, the utility of the Building Renewal Formula other than to provide a reference for funding requirements for a given year is limited because the chronic underfunding of the annual formula results in a subsequent accrual of the unfunded portion, which is not included in the following year’s formula.

As a result of over 30 years of funding shortfalls carried forward year after year, the ADOA Building System has amassed **\$686 million** (adjusted for inflation) of deferred capital maintenance.

(See Table 2: ADOA Building System Building Renewal Allocation History & Deferred Maintenance Accrual)

The real significance of the Building System’s deferred maintenance is not the estimated value; rather, it is the potential liability from building failures. The difficulty in

The COSF Dilemma

COSF is in a state of perpetual crisis generated by an array of problems, including:

- ADOA collects COSF rent for approximately 2 million square feet yet COSF supports 5.2 million square feet;
- tenants in approximately 340,000 square feet directly benefit from COSF facilities operations services but are exempt from payment of COSF rents or even basic operating and maintenance costs;
- many State agencies owning and operating structures separately from ADOA that benefit from COSF appropriations for building renewal and new capital do not contribute to COSF revenues;
- methodology to establish COSF rent rates does not reflect standard building management practices – it merely supports a cash flow requirement;
- appropriations exclusively from COSF will not stave off the negative effects of deferred maintenance;
- COSF appropriations for building renewal are budgeted only after other expenditures are obligated, further promoting the vicious cycle of deferred maintenance.

predicting and preventing major equipment or system failures in the ADOA Building System’s aging facilities is surpassed only by the difficulty in dealing with these occurrences, both physically and financially, once they occur. Major equipment breakdowns, system failures, physical plant shutdowns, building finishes and contents damage are increasingly more common.

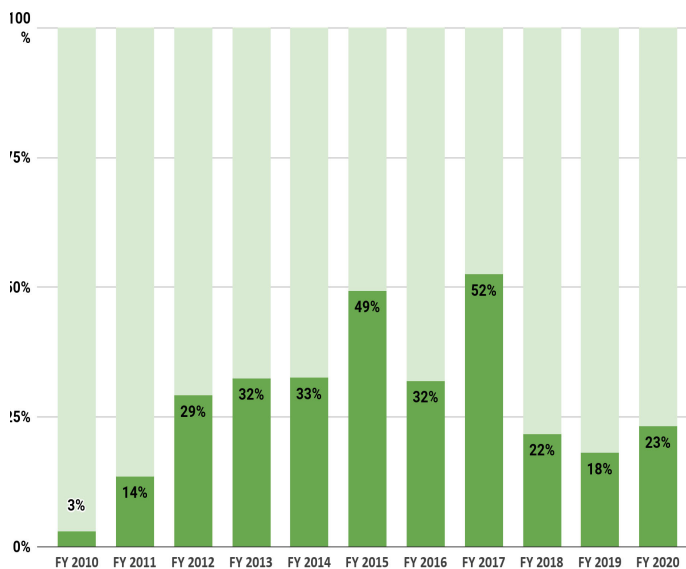
Failure to address these issues with appropriate funding creates undesirable environmental exposures, causes loss of productivity and inventory, increases expenditures in labor and mobilization fees, and further broadens the spectrum of accountability.

In order to quantify the long-term consequences of chronic underfunding of major maintenance, in June 2016 ADOA conducted a facility condition analysis of 3 million GSF of ADOA owned and/or managed buildings. The analysis, conducted by Abacus Project Management Inc. in

conjunction with the Parsons Corporation, indicated that over 1.5 million GSF (36%) of the structures it assessed were in “below average,” “poor,” or “replacement” condition.

With each passing year, ADOA’s ability to fulfill its statutory role as the steward of the State’s building assets is increasingly unattainable. To offset this trend, ADOA is recommending full funding of the FY 2021 Building Renewal Formula. The average percentage of the building renewal formula funded in the past ten fiscal years (non-dedicated fund source agencies) is 30.45% (see Chart 1–Percent of Building Renewal Formula Appropriated FY 2010–FY 2020). Even though the FY 2020 appropriation of 23.2% of the formula was an increase of 21.8% from the previous fiscal year, the appropriations were still well below the need. Even with the trending increase in building renewal appropriations from 2010 through 2020, There is still an ongoing deferment of major maintenance requirements that continue to create highly disproportionate and expensive utility, repair, maintenance, and replacement expenditures in deteriorating and poorly performing facilities. The prolonged accrual of neglected building renewal has resulted in comprehensive multi-year phased scopes-of-work that are too expensive to allocate from the insufficient building renewal appropriations and too lengthy to complete in a two-year lapsing appropriations period. Increasingly, major maintenance projects ADOA might otherwise allocate from building renewal appropriations are appearing in the CIP as large individual capital outlay requests.

Chart 1–Percent Of Building Renewal Formula Appropriated FY 2010–FY 2020



Capital Outlay Stabilization Fund

Pursuant to A.R.S. § 41-791, ADOA manages or provides some type of operational support services to approximately 5.2 million GSF in the Capitol Mall, Phoenix Metro, Tucson, and Kingman areas, including office space, parking garages, mechanical structures, and laboratories. ADOA depends on appropriations of Capital Outlay Stabilization Fund (COSF) funds to cover the operating costs of ADOA managed buildings, including utilities, routine maintenance, grounds services, operating supplies, janitorial services, operations staff salaries, and building renewal.

A.R.S. § 41-792.01 establishes the COSF and allows ADOA to collect rents and tenant improvement charges from State agencies occupying State-owned space. The legislative budget process determines the COSF rental rate ADOA charges to State agencies. COSF monies are subject to appropriation and exempt from the provisions of A.R.S. § 35-190 relating to lapsing of appropriations. Aggressive competition for limited General Fund (GF) monies has led to shifting the burden of funding the operating costs of ADOA managed State-owned buildings *and* building renewal for the entire ADOA Building System almost exclusively on COSF. Since FY 2000, COSF is the exclusive source of 61.3% of building renewal appropriations for non-dedicated fund source agencies.

In FY 2019, the Legislature approved an 11% adjustment in the COSF rental rate charged by ADOA. The FY 2020 Budget Procedures HB2747 (Laws 2019, Chapter 263) sets the FY 2020 COSF rental rate charged by ADOA at \$17.87 per rentable square foot for office space and \$6.43 per rentable square foot for storage space.

While this will result in increased funding for the COSF, it still does not support full-service operations and maintenance, fully fund the Building System Building Renewal Formula, or address deferred maintenance.

FY 2021 ADOA Building Renewal Recommendation

For the FY 2021 capital planning year, ADOA received \$628 million of building renewal requests from ADOA building system agencies. The two largest categories of requests are in the Major Building Services and Fire & Life Safety categories (see Chart 2 FY 2021 Building Renewal Request Summary).

ADOA recommends full funding of the FY 2021 Building Renewal Formula, which it forecasts to be \$77.2 million (see Table 3: Two-Year Building Renewal Formula Forecast).

ADOA recommends extending the building renewal two-year lapsing appropriation to a three-year lapsing appropriation.

ADOA’s recommendation will not fully forestall increasing deterioration of the Building System’s aging infrastructure due to the \$686 million of deferred maintenance.

An adverse policy decision for FY 2021 will further exacerbate Arizona’s legacy of persistent infrastructure failures, costly crisis mode expenses, and the liabilities associated with a run-to-fail major maintenance program.

Chart 2—FY 2021 Building Renewal Request Summary

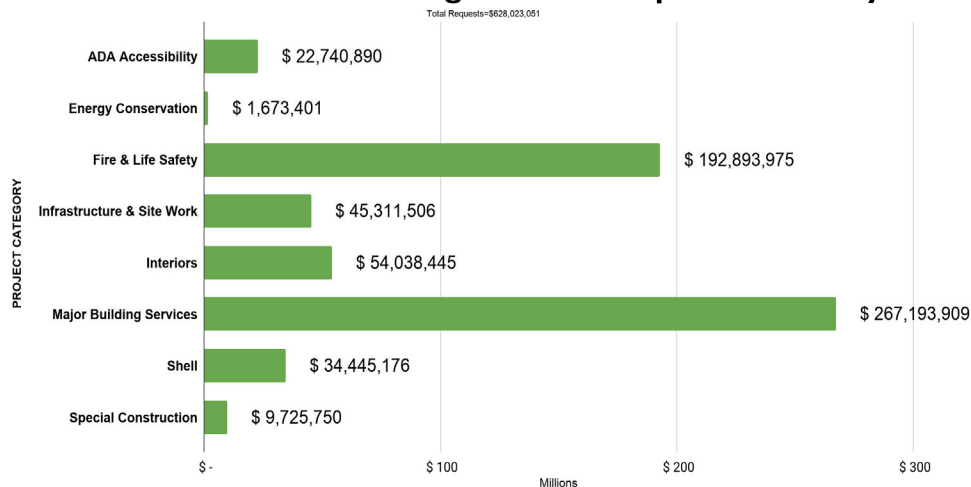


Table 2–Building Renewal Allocation History

(Excludes Dedicated Funds Source Agencies; Game & Fish and Lottery)

Fiscal Year	Building Renewal Formula	Appropriation	% of Formula Appropriated	Deferred Costs	Inflation Adjusted Deferred Costs
FY 1988	\$5,476,500	\$5,491,800	100%	-\$15,300	
FY 1989	\$6,119,300	\$3,002,000	49%	\$3,117,300	\$5,950,926
FY 1990	\$6,226,100	\$3,184,000	51%	\$3,042,100	\$5,711,543
FY 1991	\$6,238,263	\$459,100	7%	\$5,779,163	\$10,668,335
FY 1992	\$6,804,200	\$807,334	12%	\$5,996,866	\$11,058,221
FY 1993	\$8,273,745	\$2,194,500	27%	\$6,079,245	\$11,197,969
FY 1994	\$8,607,379	\$3,051,600	35%	\$5,555,779	\$9,972,623
FY 1995	\$8,675,374	\$5,372,458	62%	\$3,302,916	\$5,773,497
FY 1996	\$9,079,255	\$8,171,400	90%	\$907,855	\$1,524,742
FY 1997	\$9,857,406	\$4,911,300	50%	\$4,946,106	\$7,968,177
FY 1998	\$12,598,637	\$6,210,700	49%	\$6,387,937	\$10,067,389
FY 1999	\$13,707,938	\$13,628,000	99%	\$79,938	\$123,184
FY 2000	\$15,925,783	\$3,403,400	21%	\$12,522,383	\$17,756,739
FY 2001	\$17,209,530	\$3,682,900	21%	\$13,526,630	\$18,964,335
FY 2002	\$18,100,303	\$6,464,400	36%	\$11,635,903	\$15,883,008
FY 2003	\$18,175,137	\$3,068,300	17%	\$15,106,837	\$20,092,093
FY 2004	\$19,252,520	\$3,500,000	18%	\$15,752,520	\$20,084,463
FY 2005	\$19,852,990	\$3,500,000	18%	\$16,352,990	\$19,116,645
FY 2006	\$22,864,835	\$3,400,000	15%	\$19,464,835	\$21,878,475
FY 2007	\$25,391,389	\$7,249,200	29%	\$18,142,189	\$18,632,028
FY 2008	\$27,584,100	\$7,257,100	26%	\$20,327,000	\$20,306,673
FY 2009	\$31,042,588	\$899,300	3%	\$30,143,288	\$30,143,288
FY 2010	\$33,056,002	\$1,000,000	3%	\$32,056,002	\$32,056,002
FY 2011	\$36,763,663	\$5,000,000	14%	\$31,763,663	\$31,852,601
FY 2012 ¹	\$38,109,130	\$11,100,000	29%	\$27,009,130	\$27,846,413
FY 2013 ^{1/2}	\$41,020,965	\$13,303,100	32%	\$27,717,865	\$28,189,069
FY 2014 ¹	\$43,036,312	\$14,000,000	33%	\$29,036,312	\$30,110,656
FY 2015 ¹	\$53,665,760	\$26,464,300	49%	\$27,201,460	\$27,854,295
FY 2016 ¹	\$60,833,327	\$19,464,300	32%	\$41,369,027	\$41,824,086
FY 2017 ^{1/3}	\$61,843,644	\$32,464,300	52%	\$29,379,344	\$29,351,140
FY 2018 ¹	\$63,400,007	\$13,764,300	22%	\$49,635,707	\$50,991,476
FY 2019 ¹	\$66,247,845	\$12,000,000	18.1%	\$54,247,845	\$56,769,827
FY2020 ^{1/4}	\$73,413,138	\$17,000,000	23.2%	\$45,424,671	\$45,924,342
	\$888,453,065	\$264,469,092	35%	\$612,995,506	\$685,644,261

¹Includes a separate dedicated Building Renewal appropriation for ADC as follows: (\$4.6M in FY 2012 & FY 2013, \$5M in FY 2014, \$8.4M in FY 2015, \$5.4 million in FY 2016–FY 2020)

²Excludes \$1.7M allocated to Arizona Department of Health Services from building renewal appropriations for new capital.

³Excludes \$1.1M allocated to the Department of Juvenile Corrections from the Criminal Justice Enhancement Fund.

⁴Includes a \$11M deduction in deferred maintenance due to the demolition of obsolete buildings at 1510/1520 W Adams and 1275 Washington

Table 3–Two-Year Building Renewal Formula Forecast

Agency	Two-Year Forecast	
	FY 2021 Renewal Formula	FY 2022 Renewal Formula
Corrections, State Department of ¹	\$ 26,793,820	\$ 27,109,987
Game and Fish Department, Arizona ²	\$ 1,157,929	\$ 1,171,592
Lottery Commission, Arizona State ²	\$ 146,723	\$ 148,454
Sub-Total Dedicated Funds Source Agencies:	\$ 28,098,472	\$ 28,430,034
Administration, Arizona Department of	\$ 13,864,277	\$ 14,027,876
ADOA, Legislature	\$ 2,035,211	\$ 2,059,227
Agriculture, Arizona Department of	\$ 14,203	\$ 14,371
AHCCCS	\$ 616,257	\$ 623,529
Deaf and the Blind, Arizona State Schools for the	\$ 2,119,832	\$ 2,144,846
Economic Security, Department of	\$ 3,409,194	\$ 3,449,422
Emergency and Military Affairs, Department of	\$ 8,966,410	\$ 9,072,214
Environmental Quality, Arizona Department of	\$ 48,522	\$ 49,095
Exposition & State Fair Board, Arizona	\$ 2,862,115	\$ 2,895,888
Forestry and Fire Management	\$ 35,731	\$ 36,152
Health Services, Department of	\$ 4,110,907	\$ 4,159,416
Historical Society, Arizona	\$ 343,257	\$ 347,308
Historical Society of Arizona, Prescott	\$ 1,135,528	\$ 1,148,927
Judiciary, Arizona Supreme Court	\$ 1,051,833	\$ 1,064,245
Juvenile Corrections, Department of	\$ 1,337,557	\$ 1,353,340
Parks Board, Arizona State	\$ 2,280,414	\$ 2,307,322
Pioneers' Home, Arizona	\$ 349,085	\$ 353,204
Power Authority	\$ 66,936	\$ 67,726
Public Safety, Department of	\$ 2,572,243	\$ 2,602,595
Veterans' Services, Department of	\$ 1,868,392	\$ 1,890,439
Sub-Total Non-Dedicated Funds Source Agencies:	\$ 49,087,906	\$ 49,667,143
Grand Total:	\$ 77,186,378	\$ 78,097,177

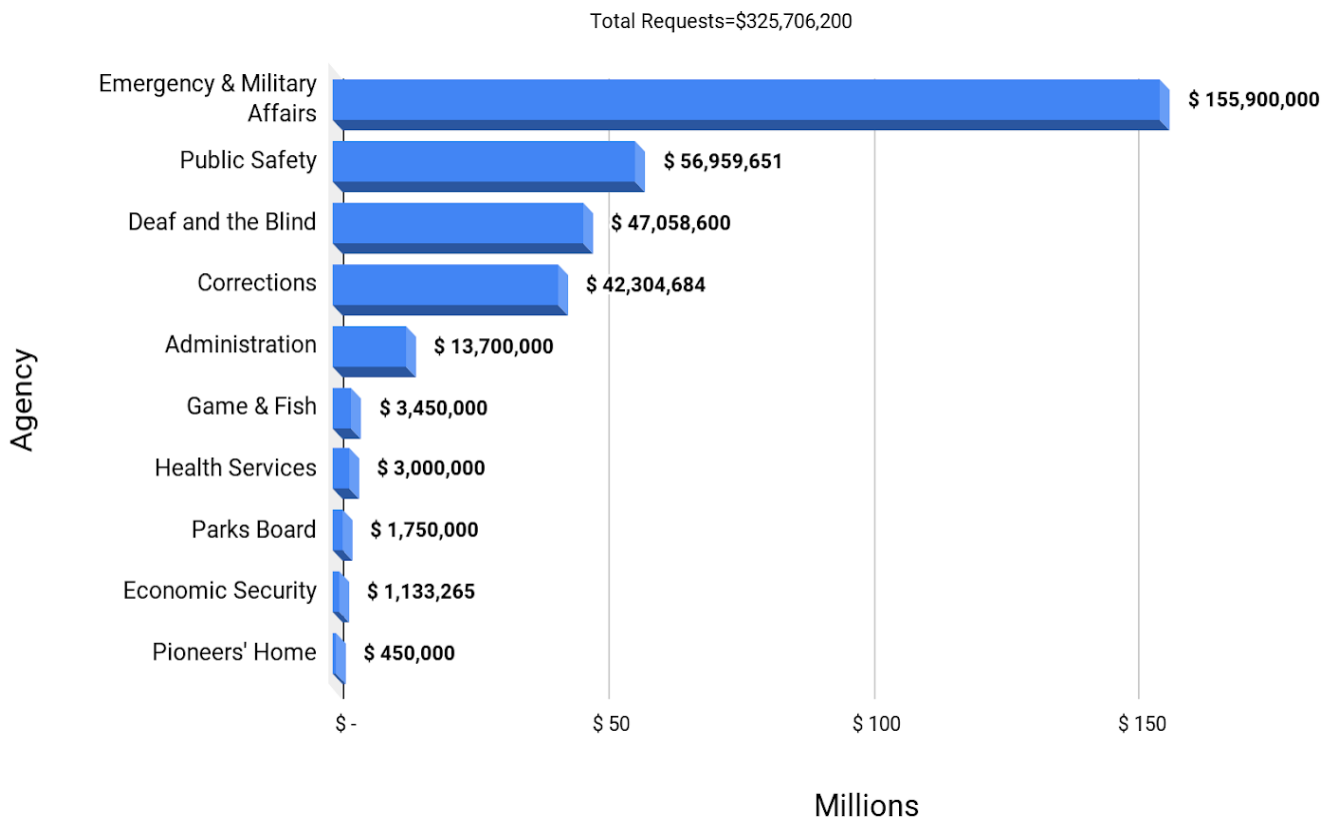
¹ Effective FY 2012 Department of Corrections is a dedicated funds source agency for Building Renewal

² Dedicated funds source agency

FY 2021 CAPITAL PROJECT RECOMMENDATIONS

For the FY 2021 capital planning year, ADOA received \$325,706,200 million of new capital outlay requests from ADOA building system agencies (see Chart 3–FY 2021 ADOA Building System Capital Request Summary). The following recommendations are a small portion of the actual capital needs throughout the ADOA building system.

Chart 3–FY 2021 ADOA Building System Capital Request Summary



ADDITIONS; RENOVATIONS; NEW CONSTRUCTION

DEPARTMENT OF PUBLIC SAFETY

South Mountain District Office

\$6.0 million

DPS needs to establish a South Mountain District Office for coverage of the South Mountain 202 Freeway, which is scheduled to open in late 2019. The freeway will extend from Interstate 10 at 51st Avenue, circumvent South Mountain, and reconnect to Interstate 10 at the intersection of the San Tan Freeway.

DPS has identified potential locations for the South Mountain District Office between 24th Street and 17th Avenue. Purchase or lease of up to 3 acres of land will enable the construction of a new 9,000 SF office. The cost of land for the new office is estimated at \$1.5 million while site work and building construction is expected to cost \$4.5 million.

Until a South Mountain District Office is constructed along the freeway, DPS will dispatch and office troopers from the Metro Phoenix Knuston District Office at 16th Street and University. Trooper response times from this location will be 30 to 45 minutes, which in an emergency situation is unacceptable and a detriment to public safety.

Construction of the South Mountain District Office will significantly reduce response times, potentially saving lives.

DPS has already received 24 new State Trooper positions to cover the South Mountain Freeway. The 24 new troopers will have to share the Metro Phoenix Knuston District Office office, training, meeting and planning space. DPS can design shifts to eliminate the necessity for troopers to all be in the office at once; however, troopers will end up working out of their vehicles to complete as much paperwork as necessary prior to going to the crowded office. Storage of equipment and other needed resources may have to be stored in conex containers or off site locations.

The South Mountain District Office will primarily support State Troopers and Criminal Investigations; however, DPS will also consolidate other related functions and supporting operations in the far southwest valley to the proposed facility.

Statewide Office and Remote Housing Replacement

\$2.8 million

To support Arizona's vast highway system, improve safety and provide timely emergency response, particularly to rural areas, DPS State Troopers are stationed at reasonable travel intervals throughout the State. With great distances between Arizona's population centers, remote housing compounds, usually consisting of modular prefabricated buildings or "units," are necessary.

DPS has approximately 60 remote housing and office units across the State. Numerous units far exceed their useful life, with some units exceeding 50 years old. Older units are poorly insulated, no longer code compliant, and are in severe deteriorated condition. Better living conditions incentivize State Troopers and their families to relocate to rural areas of the State. The burden of continuous "Band-Aid" fixes to these units is not cost effective and immediate replacement is required.

The \$2.8 million request will close out ADOA's multi-year recommendations that were subsequently funded to replace DPS' remote housing and office units and is expected to replace 8 - 10 remote area housing and office units.

FIRE & LIFE

SAFETY/INFRASTRUCTURE

ARIZONA DEPARTMENT OF CORRECTIONS

Replace Obsolete Fire Alarm and Suppression Systems, Cell Doors and Locks, and HVAC Systems ASPC Lewis/Yuma

\$27.5 million

ADC's highest priorities for capital and building renewal improvements each year include the repair and/or replacement of locks and fire systems in ADC prison complexes throughout the State. The fire alarm, suppression and locking systems in numerous prison complexes are inoperable, malfunctioning, unsupported and/or obsolete. Properly working lock and fire systems are a basic and mandatory requirement for occupied spaces, and particularly so in a confined and secure environment. Additionally, the complex' evaporative cooling units are deteriorating and inefficient. Regardless of their condition, the humid conditions created by direct evaporative cooling systems facilitate acceleration of deterioration to structural and life safety systems.

Failure to implement these repairs places the public and ADC staff and inmates at unnecessary risk.

In FY 2020 ADC initiated a multi-year project to address the failures of the fire and life safety, locking and cooling systems in its prison complexes. Due to the lead time for design and fabrication as well as the logistical restraints of working in the correctional setting, the work is scheduled over two fiscal years.

The FY 2020 and FY 2021 work includes engineering, preconstruction fabrication, and installation of locks, fire alarms, and indirect cooling systems at ASPC Lewis and ASPC Yuma. The total cost for the FY 2020 work is approximately \$23.9 million. The total cost of the FY 2021 work is approximately \$27.5 million and is the basis of this recommendation.

BUILDING SERVICES

ARIZONA DEPARTMENT OF ADMINISTRATION

Elevator Modernization for 1616 W Adams, 1200 W Washington, and 1535 W Jefferson

\$2.2 million

Even with the most comprehensive of elevator maintenance programs, all elevator systems will eventually require modernization or replacement. Many, if not most, of the elevator systems in the Governmental Mall are

FY 2021 ADOA Building System Capital Improvement Plan

beyond their expected service lives. The State modernized many of the controls in the late 1980's and early 1990's, but did not modernize mechanical operating systems. At this point, those once new controls are outdated and the mechanical systems long overdue for modernization.

Modernizing the controllers and electrification systems, replacing worn, outdated machinery, and signal systems will improve reliability, efficiency, safety, code compliance, accessibility, and performance.

ADOA has recently completed several elevator modernizations in the Governmental Mall, including 1624 W Adams, 1688 W Adams, the Old Capitol Museum, and the 1938 Addition of the Old Capitol. Elevators currently underway or with planned start dates include the House of Representatives, the State Senate, and the Executive Tower all at 1700 W Washington.

ADOA will continue its Governmental Mall elevator modernization progress with this appropriation.

Air Handler Upgrades at 1700 W Washington House, Senate and Executive Tower; Phase 2

\$4.1 million

The ADOA is requesting a \$4.1 million capital appropriation to fund Phase 2 of major upgrades to air handler systems at the House and Senate buildings and the Executive Tower.

In FY 2020, Phase 1 of the project was funded with \$1.0 million appropriated from the Public Building Land Fund for the House and Senate. This appropriation proved to be insufficient to upgrade the basement air handlers in *both* the House and the Senate. Two million dollars of the FY 2021 recommendation will facilitate the upgrade of the Senate's basement air handler and hot water pump and replace the rooftop air handler units at both the House and the Senate (see Figure 1).

In FY 2019 and FY 2020 ADOA allocated \$1.9 million of Building Renewal funds to replace two air handlers in the Executive Tower basement. In FY 2021, \$2.1 million of the requested appropriation will be used to upgrade the air handlers on the roof of the Executive Tower (see Figure 2).

The installation of air handler units includes heat exchangers, blowers, filters, humidifiers, vibration isolators, sensors, switches, actuators, control systems and other associated equipment, as well as rental of portable air handler units during construction as necessary.

The replacement of aged and inefficient HVAC systems with efficient up to date systems will generate energy savings, protect assets, and provide a well controlled climate controlled environment for mission-critical functions.

Sites, in order of priority, include:

Figure 1—Executive Tower Air Handler Upgrades Phasing

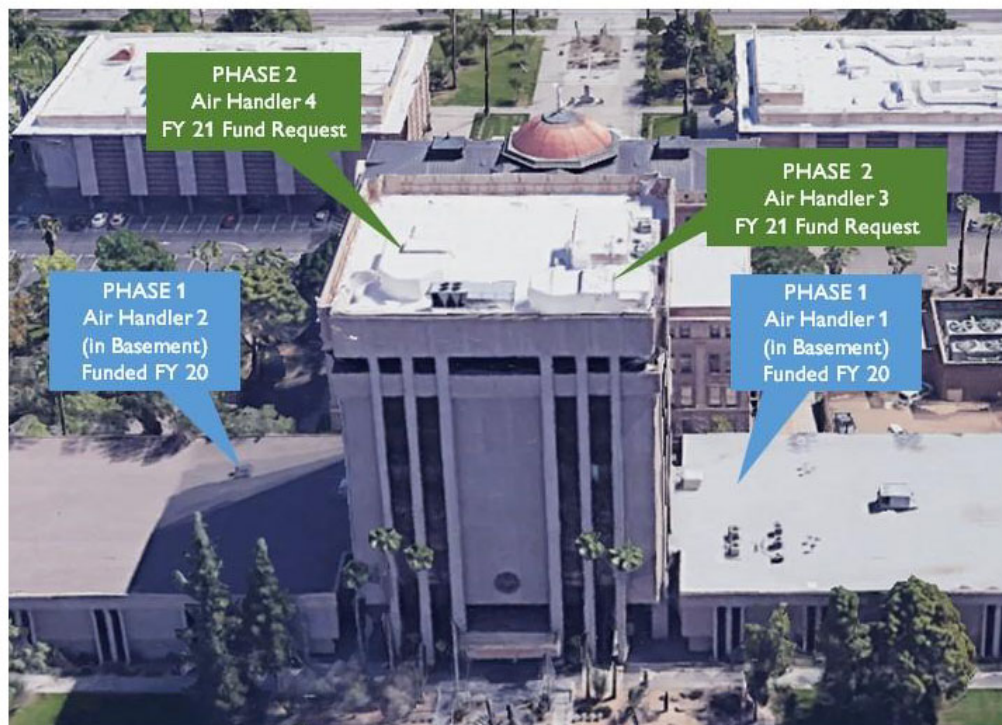


Figure 2–House and Senate Air Handler Upgrades Phasing

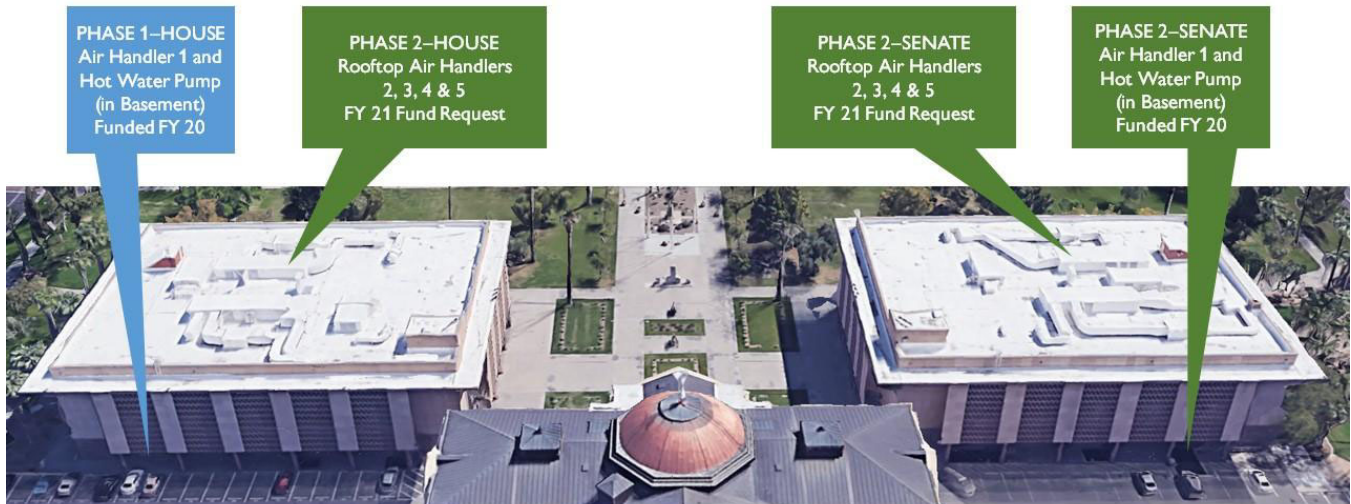


Table 4–ADOA Capital Project Recommendations

Agency	Location	Project Name	Project Category	Funds Source	FY 2021
Administration	Capitol Mall	Elevator Modernization for 1616 W Adams, 1200 W Washington and 1535 W Jefferson	Building Services	General Fund	\$ 2,200,000
Administration	Capitol Mall	Air Handler Upgrades for Senate, House and Executive Tower Phase II	Building Services	General Fund	\$ 4,100,000
Corrections	ASPC Lewis/Yuma	Replace Obsolete Fire Alarm and Suppression Systems, Cell Doors and Locks, and HVAC Systems, Complete Phase I	Fire & Life Safety	General Fund	\$ 27,500,000
Public Safety	Phoenix	South Mountain District Office	New Construction	Other Funds	\$ 6,000,000
Public Safety	Statewide	Modular Housing and Office Replacements	New Construction	General Fund	\$ 2,800,000
Grand Total ADOA Capital Project Recommendations					\$ 42,600,000