Director's Office

Douglas A. Ducey, Governor
John S. Halikowski, Director
Scott Omer, Deputy Director/Chief Operating Officer
Kevin Biesty, Deputy Director for Policy
Dallas Hammit, Deputy Director for Transportation

October 1, 2021

The Honorable Douglas A. Ducey
Governor of Arizona
Executive Tower
1700 West Washington Street
Phoenix, AZ 85007

Dear Governor Ducey:

I respectfully submit the Arizona Department of Transportation (ADOT) FY 2023 Capital Improvement Plan (CIP). The total funding request in FY 2023 is for $31,136,200. The request includes $18,607,200 for building renewal and $12,529,000 in capital improvement funding.

Building Renewal

The buildings and infrastructure within ADOT's system of facilities are in a constant state of deterioration and decline due to age and level of use. ADOT established a strategic objective to improve the maintenance, operation, and service of the transportation system. ADOT is requesting 100% of the fully funded renewal formula in FY 2023. This year's request to fully fund building renewal according to the established formula aligns with ADOT's strategic plan. The funding request of $18,607,200 includes $18,139,400 from the Highway Fund and $467,800 from the Aviation Fund.

Capital

The request for new capital project funding of $12,529,000 represents four important projects. The first request is $7,000,000 for the renovation of ADOT's 3 story annex office building located at 206 S. 17th Avenue. The FY 2022 Building Renewal allocation includes $7,450,000 for the first phase of the project making the total project cost $14,450,000.

Second, ADOT requests $1,988,800 to relocate the Signal/Lighting and Signing/Striping operations from the ADOT Tucson Grant Road site to an existing ADOT warehouse facility located at the I-10 and I-19 freeway interchange area. This project will construct new offices and crew areas, workshops, and shared restrooms and support spaces.

The third request is for $2,640,000 to replace vehicle fueling facilities at four locations: Tucson, St. David, Willcox, and Three Points. ADOT manages 57 fueling facilities located throughout the State of Arizona issuing over 4 million gallons of fuel annually. Currently, 16 of the 57 fuel facilities have fueling equipment that is in excess of 30 years in age with single wall tanks. Investment is needed now to begin the replacement/upgrade of the equipment at these fuel facilities.

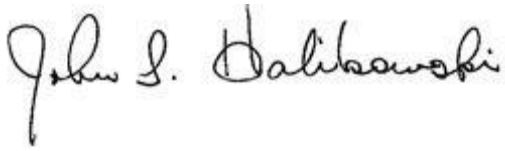
Finally, ADOT requests $900,000 for the Superior deicer materials storage building. The funds will construct a 30' x 60' storage building for the storage of sand, cinders and premixed chemical materials which are used during winter months for highway de-icing operations.

ADOT and DPS communicated their CIP needs with one another to identify areas where collaboration would accommodate joint projects in an attempt to achieve operational efficiencies and/or cost savings. No projects in ADOT's FY 2023 CIP request were identified that met DPS' facility requirements and needs. However, this effort and collaboration will continue in the future.

In addition to these monetary requests, ADOT requests continuation of the change that began in FY 2022 to allow more time to complete construction projects. Due to the time needed to complete the design and planning phase, complete the bidding process, receive legislative approval to move forward, and complete construction, two years is insufficient for project completion. This limited time allotment for project completion is particularly problematic for a project which is logistically difficult to complete due to project complexity, limited administrative staffing, or the remote location of the project. ADOT requests that appropriations continue to be made for a period of three years for all capital projects.

It is imperative that we continue to strategically invest in capital projects that will yield high benefits for years to come. I look forward to discussing the request with you and members of your staff.

Sincerely,



John S. Halikowski
Director

Enclosure

STATE OF ARIZONA
FY 2023 CAPITAL IMPROVEMENT PLAN
TRANSMITTAL STATEMENT

Form
CIP-1
(Rev 1/03)

AGENCY: DEPARTMENT OF TRANSPORTATION **A.R.S. CITATION:** 28-331

	Building Renewal Needs	FY 2023 Capital Request	Total Request
GENERAL FUNDS			
OTHER APPROPRIATED FUNDS	$ 18,607,200	$ 12,529,000	$ 31,136,200
FEDERAL FUNDS			
NON-APPROPRIATED FUNDS			
TOTAL REQUEST	$ 18,607,200	$ 12,529,000	$ 31,136,200

This and the accompanying schedules, statements, and explanatory information, constitute the Capital Budget estimates of this agency for proposed expenditures.

All statements and explanations contained in the estimates submitted herewith are true and correct to the best of my knowledge.

John S. Halikowski — Director

Signature of Agency Head — Title

John C. Hetzel, Jr. — Facilities Manager — 602-712-7952 — 10/01/2021

Request Prepared by — Title — Phone — Date

STATE OF ARIZONA
FY 2023 CAPITAL IMPROVEMENT PLAN
CAPITAL PROJECT REQUEST SUMMARY

Form
CIP-2
(Rev 1/03)

Agency: DEPARTMENT OF TRANSPORTATION

Priority	Project Name	Project Description	Fund Sources	Total Costs
1	Renovate 206 Annex Building [1]	Renovate ADOT's 3 story annex office building located at 206 S. 17th Ave	Highway	$ 7,000,000
2	Tucson Signals, Signing & Striping Building [1]	Construct southern regional signal equipment repair shop inside warehouse	Highway	$ 1,989,000
3	Vehicle Fueling Facilities Statewide [1]	Replace vehicle fueling facilities at Tucson, Wilcox, Safford, Three Points	Highway	$ 2,640,000
4	De-Icer Storage Buildings Statewide [1]	Construct 1 new de-icer material storage building in Superior	Highway	$ 900,000
		TOTAL OF PROJECTS SUBMITTED		**$ 12,529,000**

[1] ADOT requests the FY 2023 Capital Projects be appropriated for a period of 3 years.

STATE OF ARIZONA
FY 2023 CAPITAL IMPROVEMENT PLAN
CAPITAL PROJECT DESCRIPTION

Form CIP-3 (Rev 2/04)

Agency: Arizona Department of Transportation

Project: Renovate 206 Annex Building **Priority:** 1

Project Scope		Construction Cost	Total Project Cost
GSF	NASF	$/GSF	$/GSF
38,053		$ 112.06	$ 183.95

Capital Cost Estimate[1]	
Category	Cost
Land Aquisition	None
Construction	$ 4,264,192
A & E Fees	$ -
F F & E	$ 1,873,896
Other	$ 861,913
Total	$ 7,000,000

Proposed Funding[2]	
Funding Source	Amount
Prior Appropriation	
General Fund Request	
Highway	$ 7,000,000
Other:	
Total	$ 7,000,000

Estimated Change Annual Facility Operations/Maintenance	
Category	Annual Costs
Utilities	
Personnel*	
Other	
Total	
Fund Source	
*No. of FTE's	

Proposed Funding Schedule[3]				
Total Costs	Prior	FY2022	FY2023	FY2024
$ 14,450,000	$ 7,450,000	$ 7,000,000		

Proposed Work Schedule	
Phase	Start Date
Planning	04/15/19
Design	10/15/21
Construction	10/15/22
Occupancy	03/01/24

1) Land Acquisition = land purchase price; Construction = site development, construction, fixed equipment, utility extensions, parking & landscaping; A&E = architect and engineering and other professional services; FF&E = furniture, fixtures & equipment; Other = telecommunications equipment, etc.

2) List all funding sources and clearly identify proposed state funding request. Section will expand and contract based upon the number of funding sources.

3) Identify the years in which funding will be requested for multi-year funding.

STATE OF ARIZONA
FY 2023 CAPITAL IMPROVEMENT PLAN
CAPITAL PROJECT DESCRIPTION

Form

(Rev 2/04)

Agency: **Arizona Department of Transportation**

Project: **Renovate 206 Annex Building**

Priority: 1

Problem/Justification

The ADOT building 1005B Annex is a three story, 38,000 SF, concrete structure originally constructed in 1966 as an addition to the previously constructed ADOT Administration builidng. In 2019 during demolition and flooring abatement of the second floor, structural settlement was discovered as evidenced by visual cracking in the concrete and slab sagging. Final analysis by a structural engineer determined that reinforcing was improperly installed in the slabs during construction, contrary to structural plans and code requirements. A structural repair was developed that required accessibility of all faces of all suspended floors and columns, necessitating the full relocation of all Annex building occupants and the removal of all interiors finishes, walls, HVAC, plumbing, and electrical systems. The structural repair entails carbon fiber matting installed at critical locations at the top and bottom of existing floor slabs requiring full and umimpeded access. To date, the department has relocated the Multimodal Planning Division from the third floor, the Financial Management Services (FMS) group from the second floor, and the soon to occur relocation of the IT Data Center and support spaces from first floor to off-site locations. After structural repairs are completed, the building will need to be reconstructed into a viable ADOT office building, necessitating the consideration of this project.

Proposed Solution

As a result of the necessary structural repairs and full interior demolitions, ADOT will be required to re-build office space and all related building systems at all three floors of the Annex buidling after structural repairs have been accomplished. ADOT intends to design and construct modern, ADOT standard offices and modular workstation layouts on floors two and three for use by the FMS group, currently located in leased space. ADOT intends to design and construct specific space on the first floor to accommodate the ADOT Executive Hearing Office function (EHO) with effective security and separation from other ADOT functions, specific public entrances, support spaces, and hearing rooms, relative to the needs of EHO. Existing lease space occupied by EHO off-campus will be terminated upon relocation to the new space on the ADOT Central Campus.

ADOT requests the project be appropriated for a period of 3 years to ensure the project can be completed within the allotted timeframes.

Benefits

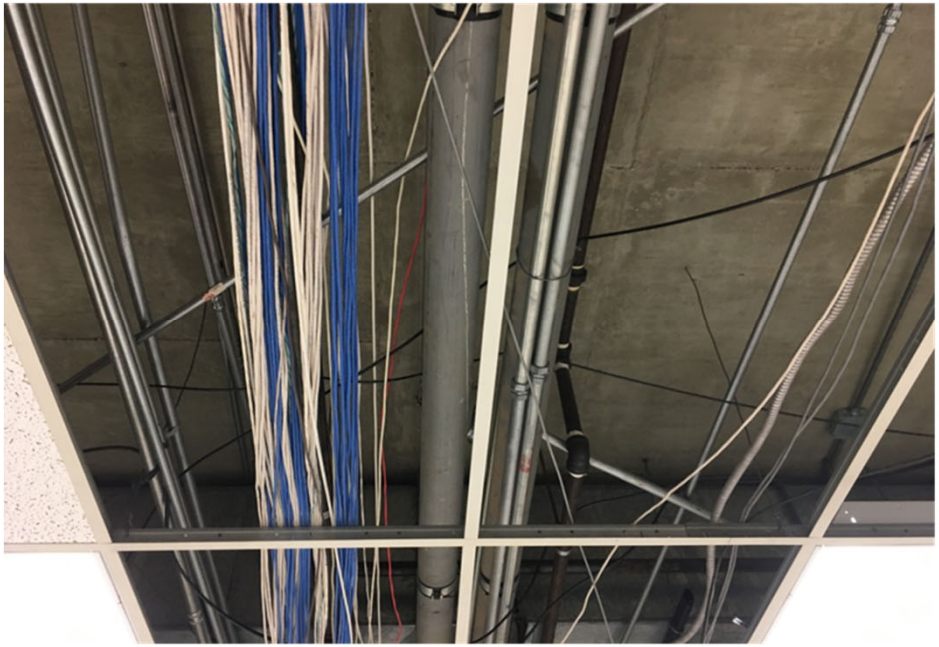
The renovation of all floors with new finishes and systems will extend the life of the building for another 50 years, and create a modern and responsive asset for ADOT on the ADOT Central Campus. Furthermore, specific renovations proposed for the first floor of the Annex create "best use" options to faciliate relocation of off-campus EHO functions, eliminating outside leasing expenses for that unit. By relocating employees from leased to owned space, the department will save $641,000 per year.

Consequences of Deferral

Assuming structural remediation is accomplished as planned under FY 2022 Building Renewal, a decision to not proceed with this project providing for the reconstruction of the office and interior spaces of the Annex will create a building in "limbo", or of "indeterminate delay", unable to be utilized for any function due to lack of requisite fire suppression systems and the absence of any and all building support systems. This space will continue to be unusable for any purpose, and ADOT will lose use of nearly 38,000 square feet of Central Campus space. Eventually, an ADOT decision will need to be made as to the need for this structure and demolition may be required as a result of extended lack of fire suppression viability by the AZ State Fire Marshal.

Coordination with the Department of Public Safety (DPS)

ADOT coordinated with DPS regarding this project; DPS stated that it didn't have any facility requirements that could be addressed by this project.



STATE OF ARIZONA
FY 2023 CAPITAL IMPROVEMENT PLAN
CAPITAL PROJECT DESCRIPTION

Form CIP-3 (Rev 2/04)

Agency: Arizona Department of Transportation

Project: Tucson Signal-Lighting and Signing-Striping Building **Priority:** 2

Project Scope		Construction Cost	Total Project Cost
GSF	NASF	$/GSF	$/GSF
4,000		$ 350.00	$ 497.20

Capital Cost Estimate[1]	
Category	Cost
Land Aquisition	None
Construction	$ 1,400,000
A & E Fees	$ 168,000
F F & E	$ 240,000
Other	$ 180,800
Total	**$ 1,988,800**

Proposed Funding[2]	
Funding Source	Amount
Prior Appropriation	
General Fund Request	
Highway	$ 1,988,000
Other:	
Total	$ 1,988,000

Estimated Change Annual Facility Operations/Maintenance	
Category	Annual Costs
Utilities	
Personnel*	
Other	
Total	
Fund Source	
*No. of FTE's	

Proposed Funding Schedule[3]				
Total Costs	Prior	FY2022	FY2023	FY2024
$ 1,988,800		$ 1,988,800		

Proposed Work Schedule	
Phase	Start Date
Planning	Feasibility
Design	7/1/2023
Construction	4/1/2024
Occupancy	6/24/2025

1) Land Acquisition = land purchase price; Construction = site development, construction, fixed equipment, utility extensions, parking & landscaping; A&E = architect and engineering and other professional services; FF&E = furniture, fixtures & equipment; Other = telecommunications equipment, etc.

2) List all funding sources and clearly identify proposed state funding request. Section will expand and contract based upon the number of funding sources.

3) Identify the years in which funding will be requested for multi-year funding.

STATE OF ARIZONA
FY 2023 CAPITAL IMPROVEMENT PLAN
CAPITAL PROJECT DESCRIPTION

Form (Rev 2/04)

Agency: **Arizona Department of Transportation**

Project: **Tucson Signal-Lighting and Signing-Striping Building**

Priority: 2

Problem/Justification

The existing Transportation Systems Management and Operations (TSMO) Signal/Lighting operation is located in an early 1950s industrial building located on the Grant Road Maintenance Yard site. This building was originally constructed as an elevated building with parking and storage underneath. Over time, the first level was enclosed and made into offices and workshops. This buidling has no first floor "step up", and regularly floods with recurring water damage to structure, furnishing, and equipment, resulting in mold and termite issues. Spaces are "make-shift" offices and storage rooms, restrooms are non-ADA compliant, and building utilities are outdated. The second floor offices are inaccessible for ADA. TSMO Signing/Striping is located separately on-site in other buildings and warehouses.

Proposed Solution

ADOT intends to relocate the Signal/Lighting and Signing/Striping operations from the ADOT Grant Road site to an existing ADOT warehouse facility located at the I-10 and I-19 freeway interchange area. This project will construct new offices and crew areas, workshops, and shared restrooms and support spaces, totaling 4,500 S.F., within the existing warehouse area. Remaining warehouse space will accommodate all relocated storage needs for both units. All space at the Grant Road site abandoned by these units can be repurposed for other Grand Road occupants, such as the Sign Storage space will be used by the Tucson Equipment Services Shop. The abandoned Signal and Lighting building at Grant Road will be demolished or repurposed with an open equipment/vehicle storage on the ground level, eliminating flooding damage risks.

ADOT requests the project be appropriated for a period of 3 years to ensure the project can be completed within the allotted timeframes.

Benefits

Relocation of these TSMO operating units from the Grant Road site will "free-up" considerable office and warehouse space for other uses on the Grant Road site. Abandonment of the existing "flood prone" building will eliminate flood risk and incurred damages by applying more appropriate uses or by demolition. The new TSMO Signal/Lighting and Signing/Striping facility will offer modern and full service support space, and added space for future needs.

Consequences of Deferral

The TSMO Signal/Lighting operations will continue to operate in substandard, inaccessible, and damage prone space due to flooding and environmental exposures from mold, water infiltration and termite infestation.

Coordination with the Department of Public Safety (DPS)

ADOT coordinated with DPS regarding this project; DPS stated that it didn't have any facility requirements that could be addressed by this project.

Exterior views of the building used by Signal/Lighting. The building originally had open parking under an elevated floor. The parking was closed in to create additional floor space. The lower floor floods regularly durng heavy rains.

Damaged/rotting wood at the exterior

Standing water in tool storage

Water comes through this wall

Restroom is not ADA compliant

Water damage on the floor tiles

STATE OF ARIZONA
FY 2023 CAPITAL IMPROVEMENT PLAN
CAPITAL PROJECT DESCRIPTION

Form CIP-3 (Rev 2/04)

Agency: Arizona Department of Transportation

Project: Replace Vehicle Fueling Facilities Statewide: Tucson, St. David, Willcox & Three Points **Priority:** 3

Project Scope		Construction Cost	Total Project Cost
GSF	NASF	$/GSF	$/GSF

Capital Cost Estimate[1]	
Category	Cost
Land Aquisition	
Construction	$ 2,200,000
A & E Fees	$ 220,000
F F & E	
Other	$ 220,000
Total	**$ 2,640,000**

Proposed Funding[2]	
Funding Source	Amount
Prior Appropriation	
General Fund Request	
Highway	$ 2,640,000
Other:	
Total	$ 2,640,000

Estimated Change Annual Facility Operations/Maintenance	
Category	Annual Costs
Utilities	
Personnel*	
Other	
Total	
Fund Source	
*No. of FTE's	

Proposed Funding Schedule[3]				
Total Costs	Prior	FY2022	FY2023	FY2024
$ 2,640,000		$ 2,640,000		

Proposed Work Schedule	
Phase	Start Date
Planning	7/1/2022
Design	1/1/2023
Construction	1/1/2024
Occupancy	6/30/2025

1) Land Acquisition = land purchase price; Construction = site development, construction, fixed equipment, utility extensions, parking & landscaping; A&E = architect and engineering and other professional services; FF&E = furniture, fixtures & equipment; Other = telecommunications equipment, etc.

2) List all funding sources and clearly identify proposed state funding request. Section will expand and contract based upon the number of funding sources.

3) Identify the years in which funding will be requested for multi-year funding.

STATE OF ARIZONA
FY 2023 CAPITAL IMPROVEMENT PLAN
CAPITAL PROJECT DESCRIPTION

Form

(Rev 2/04)

Agency: **Arizona Department of Transportation**

Project: **Replace Vehicle Fueling Facilities Statewide: Tucson, St. David, Willcox & Three Points**

Priority: 3

Problem/Justification

The ADOT Equipment Services, Fuel Systems Management Group manages 57 fueling facilities located throughout the State of Arizona issuing over 4 million gallons of diesel, unleaded and E-85 fuel annually.

The fuel systems operation currently does not receive funds for replacement/upgrade of equipment after the total lifecycle has been depleted. ADOT's fueling network is the main source of energy for the agency's day-to-day operations and serves as the main fueling infrastructure in case of a State emergency. Some years ago ADOT was granted funds from the legislature to install fuel islands and at the same time was identified as the states fuel supplier going forward. This enterprise model eliminates other agencies requesting funds for fueling infrastructures and allows agencies to fuel at ADOT. As a result, agencies such as Department of Public Safety, Department of Administration, County Sheriff Departments, and over 40 other municipalities utilize ADOT's fueling systems through an intergovenmental agreement process. The fuel sites also provide fuel for snow removal activities, emergency first responders, and specialized equipment for general roadway maintenance crews.

An evaluation was performed on the agency's 108 Aboveground Storage Tanks (AST), Underground Storage Tanks (UST), and the associated piping systems. Each fuel system was evaluated based on four factors; age of tank, age of connected piping, materials used, and type of tank either single or double wall construction. This study was conducted by Scott Chandler, Devin Darlek and James Brown, with over 80 years combined fuel system experience. These individuals are ADOT's subject matter fuel systems experts. The average lifecycle for a typical fueling system is 30 years.

Currently, we have 16 of 57 fuel facilities that have fueling equipment that is in excess of 30 years in age with single wall tanks. The most critical sites in need of total system replacement are Tucson, St David, Willcox & Three Points. These sites are strategically located near the I-10 corridor to allow ADOT and other agencies to receive fuel.

STATE OF ARIZONA
FY 2023 CAPITAL IMPROVEMENT PLAN
CAPITAL PROJECT DESCRIPTION

Form

(Rev 2/04)

Agency: **Arizona Department of Transportation**

Project: **Replace Vehicle Fueling Facilities Statewide: Tucson, St. David, Willcox & Three Points**

Priority: 3

Problem/Justification (continued)

The State Risk Management office completed a review of State Agency owned USTs in 2016. This was based on research from the Arizona Department of Environmental Quality (ADEQ) records. In this report they concluded the service life of a UST is roughly 20-30 years. Risk Management noted that agencies should assess the continued need for older gasoline USTs because of the high risk of the UST failing and causing pollution. Additionally, subsurface contamination due to slow leaks may exist even if the inventory control and leak detection systems do not indicate a release. Most leak detection and inventory control methods can only detect releases that exceed 150 gallons per month. State Risk believes the best method to monitor USTs for leaks is by checking the interstitial space of the tank and the piping.

The diesel tanks have 30+ years of sludge in the bottom of the tank that clogs the filters faster than normal. Pieces of clear coat have been found in the filter screen. This is usually the first sign of major degradation in the Fiberglass Reinforced Plastic (FRP) UST. This is a problem since the clear coat which is more resistant to the chemicals in the fuel is the main protective coating for the FRP tank.

The Flagstaff diesel tank has 30+ years of sludge in the bottom of the tank that clogs the filters faster than normal. Pieces of clear coat have been found in the filter screen. This is usually the first sign of major degradation in the Fiberglass Reinforced Plastic (FRP) UST. This is a problem since the clear coat which is more resistant to the chemicals in the fuel is the main protective coating for the FRP tank.

Methanol residue in the bio-diesel (added to diesel fuel to improve lubricity) appears to have a similar effect as ethanol when reacting with the fiberglass tanks constructed prior to 1983. The alcohols have an affinity for water causing the water to coalesce out of the fuels and settle on the bottom of the tank. The microbes living in the water eat the fuel and excrete acetic acid as a waste product. Acetic acid has been demonstrated to damage both FRP and steel tank which can damage the tank structure. The other issue is the alcohols in the fuel can react with the FRP resin on these tanks to degrade and dissolve the resin. Over time it is possible the alcohols can soften the resin, increasing the likelihood for tank to have a structural failure. The result would be a fuel leaking into the environment.

STATE OF ARIZONA
FY 2023 CAPITAL IMPROVEMENT PLAN
CAPITAL PROJECT DESCRIPTION

Form

(Rev 2/04)

Agency: **Arizona Department of Transportation**

Project: **Replace Vehicle Fueling Facilities Statewide: Tucson, St. David, Willcox & Three Points**

Priority: 3

Problem/Justification (continued)

Diesel tanks also have red thread A.O Smith fiberglass product lines. Neither the red thread piping nor the glue kits used to assemble them claimed to be Ethanol compatible. The red thread pipe line was replaced with green thread and later with silver thread by the manufacturer in an effort to keep the piping certifiable for use with the ever changing fuel blends mandated by the EPA (including ethanol and other chemicals introduced into the unleaded fuel to reduce emissions).

Unfortunately, the ultra-low Sulphur fuel (15 PPM) has also shown to have detrimental effects on the diesel fueling equipment. The largest problem is the fuel "drying" out the seals of the dispensing equipment. The Flagstaff product lines are not a "safe system" meaning if a problem was to develop in the piping the fuel could seep into the surrounding soil and evade detection. This system only has a single wall tanks and piping. The EPA rule mandates precision line testing once every three years. ADOT has implemented a more rigorous testing regime: we test once per year. Even with a more aggressive testing schedule, the possibility still exists for the lines to leak before detection.

ADOT recommends replacing these systems prior to them failing and or causing pollution into the environment. Additionally, as these sites continue to age the amount of spare parts, breakdown, service calls and time out-of-service will continue to rise. The sites below have the year when the tanks and piping were installed.

- Tucson: Tanks installed 1986, pipes installed 1995
- St. David: Unleaded tank installed 1981, diesel tank and pipes installed 1997
- Willcox: Unleaded tank installed 1981, Diesel tank and pipes installed 1991
- Three Points: Tanks and pipes installed 1981

STATE OF ARIZONA
FY 2023 CAPITAL IMPROVEMENT PLAN
CAPITAL PROJECT DESCRIPTION

Form

(Rev 2/04)

Agency: **Arizona Department of Transportation**

Project: **Replace Vehicle Fueling Facilities Statewide: Tucson, St. David, Willcox & Three Points**

Priority: 3

Proposed Solution

The proposed solution is to replace the entire fueling system at Tucson, St. David, Willcox and Three Points. This includes the underground storage tanks, all piping, sumps, dispensers, fuel booth canopy etc.

The proposed replacement would be to add two new 12,000 aboveground storage tanks (AST) built to the UL 2085 standard and piped to a remote fuel island. To comply with federal regulations, we recommend double wall piping sumps, dispenser pans, connected by double wall piping running through a chase pipe. The chase pipe allows for product line replacement without the need for excavation in the event of a piping failure. We recommend an OPW flex work pipe, Gas Boy dispenser, Red Jacket submersible sump pumps, Veeder Root 450 for Automatic Tank Gauge (ATG) with all the containment structures continuously monitored for leaks by the ATG. The electronic monitoring fulfills the 2015 EPA requirement for monthly inspections that took effect October 2018. There should be containment around off-loading header and sensors in piping sump and dispensers. Lastly, we recommend a fuel island canopy with LED lighting and a booth to store the Fuel Force, spill kit etc.

ADOT requests the project be appropriated for a period of 3 years to ensure the project can be completed within the allotted timeframes.

Benefits

The new fueling facilities at Tucson, St. David, Willcox and Three Points would provide a reliable fueling system that supports 51,000 fuel transactions, with 571,000 gallons of Diesel and Unleaded fuel issued annually.

The two main benefits for this fuel facility replacement are to have a dependable fueling system and protect the environment against a fuel leak. Additionally, these systems will reduce the amount of time to repairing the 30+ year old systems.

A modern AST system consists of double wall tank with monitoring between the two shells of the tank structure. The tanks are built to the 2018 standard are two-hour fire and ballistic rated. Liability insurance is less expensive for an AST system since the entire storage tank area can be visually inspected to verify the tanks are not leaking fuel and are therefore safer than a UST storage system. The ASTs are located at a safe distance away from the fuel island; this provides an additional level of safety for the customer since they can stay outside of the fuel storage area during fuel off-loading.

STATE OF ARIZONA
FY 2023 CAPITAL IMPROVEMENT PLAN
CAPITAL PROJECT DESCRIPTION

Form

(Rev 2/04)

Agency: **Arizona Department of Transportation**

Project: **Replace Vehicle Fueling Facilities Statewide: Tucson, St. David, Willcox & Three Points**

Priority: 3

Consequences of Deferral

If current conditions remain at the fueling facilities, the probability of a fuel release will increase each year. The aging fueling equipment will breakdown more frequently. This will lead to costly repairs and downtime leaving the site out-of-service more frequently; resulting in customers searching for fueling locations. This could be a major problem with large equipment such as snow plows etc. especially during a snow emergency coupled with a loss of utility power (these fuel sites are equipped with emergency power back-up systems). Additionally, if the site has a fuel release or is not in-compliance, ADOT could receive fines up to $10,000 per day or pay for expensive remediation fees to clean-up the site.

Everything has a usable lifespan and the life can be prolonged by carefully maintaining the equipment but eventually it will fail. Fuel storage tank manufacturers provide a maximum of 30 year guarantee on the storage tanks they manufacturer. The 30 year timeframe is based on historical data that has been gathered since fuel has been stored in large tanks to service the motoring public.

The FRP tanks are immune to rust but not from the newer fuel formulations. All the major tank manufacturers claim zero compatibility with Ethanol for tanks manufactured prior to 1983; that has presented a problem since Ethanol began to replace MTBE 15 years ago. The mandate was for 10% Ethanol and 90% gasoline but due to splash blending concentrations as high as 22% were found by regulators. Rules were put into place that prohibited splash blending to insure that 10% was being delivered to the customer's storage tanks. There have been many reports of FRP tanks failing at the seams or sometimes the entire tank bottom. ADOT has experienced a failed FRP tank in 2017 at our Avondale facility and 2021 at our Needle Mountain facility. At the Avondale facility, an interior video shows massive damage to the clear coat lining of the tank as well as resin deterioration to the point that the fiberglass mesh was clearly visible in many parts of the tank bottom. Fortunately, the automatic tank gauge warned of the impending failure and ADOT was only unable to account for approximately 178 gallons after immediately responding to the data indicating a problem. Environmental characterization of the Avondale tank pit indicated the hydrocarbons and chemicals were well below the action levels mandated by the EPA so the site was successfully closed with no further remediation necessary.

No matter how good the UST system is (inventory control, leak detection, etc.) there is always the possibility of fuel leaking into the environment from tiny quantities to major releases from a catastrophic failure. Our goal is to avoid any fuel leak into the environment. For this reason we are requesting the sites at Tucson, St. David, Willcox and Three Points have total fuel system replacement.

Lastly, if these sites go out of service it causes increased time for customer to find fuel for logistical projects and increased safety risk associated with large equipment trying to pull in and around a non-industrial designed fueling system.

Coordination with the Department of Public Safety (DPS)

ADOT coordinated with DPS regarding this project; DPS stated that it didn't have any facility requirements that could be addressed by this project.

STATE OF ARIZONA
FY 2023 CAPITAL IMPROVEMENT PLAN
CAPITAL PROJECT DESCRIPTION

Form CIP-3 (Rev 2/04)

Agency: Arizona Department of Transportation

Project: Superior De-Icer Materials Storage Building **Priority:** 4

Project Scope		Construction Cost	Total Project Cost
GSF	NASF	$/GSF	$/GSF

Capital Cost Estimate[1]	
Category	Cost
Land Aquisition	
Construction	$ 685,000
A & E Fees	$ 100,000
F F & E	
Other	$ 65,000
Total	**$ 900,000**

Proposed Funding[2]	
Funding Source	Amount
Prior Appropriation	
General Fund Request	
Highway	$ 900,000
Other:	
Total	$ 900,000

Estimated Change Annual Facility Operations/Maintenance	
Category	Annual Costs
Utilities	
Personnel*	
Other	
Total	
Fund Source	
*No. of FTE's	

Proposed Funding Schedule[3]				
Total Costs	Prior	FY2022	FY2023	FY2024
$ 900,000		$ 900,000		

Proposed Work Schedule	
Phase	Start Date
Planning	7/1/2022
Design	1/1/2023
Construction	1/1/2024
Occupancy	6/30/2025

1) Land Acquisition = land purchase price; Construction = site development, construction, fixed equipment, utility extensions, parking & landscaping; A&E = architect and engineering and other professional services; FF&E = furniture, fixtures & equipment; Other = telecommunications equipment, etc.

2) List all funding sources and clearly identify proposed state funding request. Section will expand and contract based upon the number of funding sources.

3) Identify the years in which funding will be requested for multi-year funding.

STATE OF ARIZONA
FY 2023 CAPITAL IMPROVEMENT PLAN
CAPITAL PROJECT DESCRIPTION

Form

(Rev 2/04)

Agency: **Arizona Department of Transportation**

Project: **Superior De-Icer Materials Storage Building**

Priority: 4

Problem/Justification

Sand, cinders, and de-icer chemicals, such as magnesium chloride, are the principal materials which are applied to road surfaces to improve drivability after the snow has been plowed. De-icer materials are stored in a designed steel framed structure set on a concrete slab with a 10-foot high concrete base walls. In many areas de-icing materials are either stored in existing maintenance buildings, contingent on available space, or outside. The storage of materials in the existing wooden structure increases the time it takes to load the spreader trucks because it becomes a manual process, which results a higher cost than the use of mechanized bulk storage buildings along with potential environmental concerns. This also increases the cycle time of the snowplows for a designated stretch of highway because the snowplows have to drive a greater distance to replenish their de-icer materials. These same issues also apply to materials, which are stored outside, with the addition of exposure to moisture and freezing conditions which contribute to making their use both difficult and unreliable. Also, the current wooden storage strucure is not economically repairable and has deteriorated to the point that it can no longer be used.

Proposed Solution

Construction of 30' x 60' storage building for the storage of sand, cinders and premixed chemical materials which are used during winter months for highway de-icing operations. The new building will incorporate environmental enhancements requested by ADOA Risk Management and minimize the potential for environmental incidents. The building is steel frame construction with a 10 foot high concrete base wall.

Benefits

ADOT will be in compliance with environmental regulations and realize a potential cost avoidance up to $25,000 per day per violation, along with potential remediation costs. Materials will be more consistent in quality and more reliable.

ADOT requests the project be appropriated for a period of 3 years to ensure the project can be completed within the allotted timeframes.

Consequences of Deferral

Deferral of this issue may be considered as environmental non-compliance and result in a civil penalty of up to $25,000 per day perviolation as well as a stipulated penalty between $2,500 - $4,000 per day per violation.

Coordination with the Department of Public Safety (DPS)

ADOT coordinated with DPS regarding this project; DPS stated that it didn't have any facility requirements that could be addressed by this project.

Existing Superior De-Icer Building

STATE OF ARIZONA
FY 2023 CAPITAL IMPROVEMENT PLAN
FY 2024-2025 TWO YEAR CAPITAL PROJECT FORECAST

Form CIP-5 (Rev 1/03)

Agency: DEPARTMENT OF TRANSPORTATION

Year	Project Name	Project Description	Total Costs
FY24	Keams Canyon Maintenance Yard	Construct new 4 bay truck barn, office & ready room	$ 2,820,000
FY24	Vehicle Fueling Facilities Statewide	Replace vehicle fueling facilities at 3 locations	$ 1,980,000
FY24	Tucson North MVD Office	Renovate existing building	$ 3,371,000
FY24	Phoenix Consolidated MVD Office	Renovate building	$ 5,609,000
		SUBTOTAL	**$ 13,780,000**
FY25	Vehicle Fueling Facilities Statewide	Replace vehicle fueling facilities at 3 locations	$ 1,980,000
FY25	Yuma Maintenance Office	Construct replacement roadway maintenance office	$ 1,985,000
FY25	Payson Roadway Office & Signing/Signal Shop	Construct new multi-use building to replace trailers	$ 2,990,000
FY25	Gray Mountain Office Building	Construct new roadway maintenance office and crew room	$ 1,485,000
FY25	Springerville Maintenance New Equipment Barn	Construct new 8 bay equipment barn	$ 4,485,000
		SUBTOTAL	**$ 12,925,000**
		TOTAL	**$ 26,705,000**

Form
CIP-6
(Rev 1/03)

STATE OF ARIZONA
FY 2023 CAPITAL IMPROVEMENT PLAN
BUILDING RENEWAL FORECAST

Agency: **DEPARTMENT OF TRANSPORTATION**

FUND SOURCE: **STATE HIGHWAY FUND**

Primary Category	FY 2023	FY 2024
Fire Life Safety	$ 500,000	$ 500,000
Roofs	$ 1,300,000	$ 1,300,000
Exterior Building Finishes	$ 1,813,900	$ 1,813,900
Major Building Systems	$ 3,800,000	$ 3,800,000
Interior Building Finishes	$ 1,500,000	$ 1,500,000
Major Renovation	$ 6,125,500	$ 6,125,500
ADA Accessibility	$ 100,000	$ 100,000
Infrastructure	$ 3,000,000	$ 3,000,000
Totals	**$ 18,139,400**	**$ 18,139,400**

FUND SOURCE: **STATE AVIATION FUND**

Primary Category	FY 2023	FY 2024
Fire Life Safety	$ 10,000	$ 10,000
Roofs	$ 10,000	$ 10,000
Exterior Building Finishes	$ 50,000	$ 50,000
Major Building Systems	$ 59,800	$ 59,800
Interior Building Finishes	$ 30,000	$ 30,000
Major Renovation	$ 273,000	$ 273,000
ADA Accessibility	$ 3,000	$ 3,000
Infrastructure	$ 32,000	$ 32,000
Totals	**$ 467,800**	**$ 467,800**

STATE OF ARIZONA
FY 2021 CAPITAL PROJECT STATUS REPORT

Form
CIP-7
(Rev 1/03)

Agency: **DEPARTMENT OF TRANSPORTATION**

Project Name ($100,000 or greater)	Appropr Number	Primary Category	Fund Source	FY2021 Expenditures	Total Costs	Estimated Total Costs	Completion Date
FY2020 Wickenburg New Buildings (HWY)	DT55940	NC	SHF	$ 158,533	$ 449,851	$ 4,600,000	FY23
FY2020 Seligman/Williams Maintenance Buildings (HWY)	DT55930	NC	SHF	$ 128,296	$ 128,816	$ 2,300,000	FY22
Subtotal: Projects more than $100,000				**$ 286,829**	**$ 578,667**	**$ 6,900,000**	

Projects less than $100,000 (summed by primary category)

New Building Construction							
New Infrastructure							
Fire Life Safety			Renewal	$ 490,344		$ 490,344	FY21
Roofs			Renewal	$ 318,421		$ 318,421	FY21
Exterior Building Finishes			Renewal	$ 804,781		$ 804,781	FY21
Major Building Systems			Renewal	$ 3,560,590		$ 3,560,590	FY21
Interior Building Finishes			Renewal	$ 404,087		$ 404,087	FY21
Major Renovation			Renewal	$ 5,416,874		$ 5,416,874	FY21
ADA Accessibility			Renewal	$ 165,554		$ 165,554	FY21
Infrastructure			Renewal	$ 1,368,757		$ 1,368,757	FY21
Land Acquisitions							
Land Sales							
Subtotal: Projects less than $100,000				**$ 12,529,408**	**$ -**	**$ 12,529,408**	
Grand Totals				**$ 12,816,237**	**$ 578,667**	**$ 19,429,408**	

STATE OF ARIZONA
ARIZONA DEPARTMENT OF TRANSPORTATION
DEPARTMENT OF TRANSPORTATION BUILDING SYSTEM BUILDING INSPECTIONS
BUILDING CONDITION RECAP – July 1, 2020 to June 30, 2021

During Fiscal Year 2021, the Department of Transportation conducted 320 inspections of existing structures in the ADOT Building System per ARS 41-793. Upon completion of the inspections, written reports were prepared and the following action(s) taken:

1. The Inspection results were discussed with the Regional Physical Plant Directors.
2. In some cases there were Service Work Orders created In the Tririga Work Order Tracking System
3. In other cases the necessary work is being submitted for building renewal consideration.

Facility inspections that were conducted included Building, Structural, Roofing, Mechanical, Plumbing, Electrical, Fire Sprinkler, ADA, and the Site.

Buildings Inspected
320

The condition of the facilities inspected in the past year range from good to poor. A majority of the facilities inspected were determined to be in good or fair condition where good condition means little or no repairs are required and fair condition means in need of some minor repairs.

A detailed listing of the ADOT Building System inventory is on file in the ADOT Facilities Management & Support Group office.

Electronic files of all inspection reports are on file in the ADOT Facilities Management & Support Group office word document file system.

This report was prepared by ADOT State Building Inspector

STATE OF ARIZONA
ARIZONA DEPARTMENT OF TRANSPORTATION
DEPARTMENT OF TRANSPORTATION BUILDING SYSTEM INVENTORY
BUILDING INVENTORY RECAP – JUNE 30, 2021

The Department of Transportation's Building System includes an inventory of all buildings and structures. For purposes of planning and risk management, the Facilities Management and Support Group of the Department of Transportation has compiled an inventory of 1,490 buildings and structures that have a total square footage of approximately 3,646,944 and a replacement value estimated at $952,651,694.34. The valuation is based primarily upon the Marshall Valuation Service, R.S. Means estimating and actual past costs. The building inventory is updated annually and utilized in the formula for determining the amount for the Building Renewal Program.

The Department of Transportation's building inventory is distributed and valued as follows:

Fund Source	# of Buildings	Square Footage	Repl. Costs	FY 2022 Renewal Costs	Proj. FY 2023 Renewal Costs
Highway	1,444	3,643,649	$928,727,525	$15,421,909	$18,139,400
Aviation	46	93,295	$23,924,169	$310,397	$467,800
Totals	**1,490**	**3,736,944**	**$952,651,694**	**$15,732,306**	**$18,607,200**

A detailed listing of the ADOT Building Inventory is on file in the ADOT Facilities Management and Support Group office.