

State of New Hampshire
Department of Transportation

House Capital Budget Committee

HB25 Presentation

March 10, 2021

STATE OF NEW HAMPSHIRE

CAPITAL IMPROVEMENT PROJECT REQUEST

FISCAL YEARS 2022-2023

AGENCY

Department of Transportation

ACTIVITY / DIVISION

Division of Aeronautics, Rail & Transit

NAME

Priority #	Project Name	Funding Source				
		Agency Request			Governor	
		General	Federal	Total	Approved	Adjustment
1	Federal and 5% State Match for Federal Aviation Administration Projects	1,172,772	27,758,695	28,931,467	28,931,467	0
2	10% Match for Public Transit Bus Capital Projects	251,250		251,250	251,250	0
3	Development of Aviation Management Software (Aircraft Registration Software)	300,000		300,000	300,000	0
4						0
5						0
6						0
7						0
8						0
9						0
10						0
11						0
12						0
13						0
14						0
15						0
	Totals - Projects 1-15	1,724,022	27,758,695	29,482,717	29,482,717	0

Name: Victoria F. Sheehan

Title: Commissioner

Date: 2/26/2021

1. Why the project is necessary:

This request is for many airport infrastructure and safety projects. Please see attached for specific details.

2. What the project is replacing or adding on to:

This is a safety infrastructure program for many projects.

3. A brief description of what the project includes

Please see attached

4. Any back up information

Please see attached

Bureau of Aeronautics Capital Budget Request Information

This Capital Budget request will support the continued safety improvements and development of airports within the state by providing 5% of the required 10% match for the Federal Aviation Administration (FAA) Airport Improvement Projects (AIP) program. The ratio of funds for each airport project is based upon 90% Federal Funding, 5% state share and a 5% local share (not included in this request as these funds do not pass through NHDOT). It is anticipated that funds from this project will be used at the following federally eligible airports: Manchester, Lebanon, Portsmouth, Laconia, Nashua, Dean Memorial (Haverhill), Dillant-Hopkins (Keene), Skyhaven (Rochester), Concord, Claremont, Mt. Washington (Whitefield), and Berlin. All projects are solicited from the respective sponsor as to safety needs, economic feasibility, and FAA and State priorities. It is required that the entire non-federal share be provided in order to accept the FAA funds. The airports' capital needs are evaluated through a periodic master planning process and prioritized using the FAA's National Priority Rating system. Based on anticipated short-term funding provided by the FAA, the projects to be funded in the upcoming biennium are identified using a mix of local, regional, and national funding priorities. The funding level for the FAA's grant program is determined by the U.S. Congress and the President in authorizing legislation and annual appropriation bills. Statewide projects are completed by the Department, therefore these require a 10% match (no local share). Statewide projects include matching FAA funding for the New Hampshire Aircraft Rescue and Fire Fighting (ARFF) training facility, Concord, NH, as well as pavement condition and obstruction evaluation studies at NH's nine airports in the State Block Grant Program.

This request includes approximately 30 FAA AIP projects for planning and infrastructure improvements at 12 public-use airports, and for certain NHDOT airport system wide projects, including improvements to the New Hampshire Aircraft Rescue and Fire Fighting Training Facility located in Concord, NH, and other studies.

As stated above, each project listed is determined through an FAA Airport Master Planning process that is conducted to outline projects over a 20-year period. The Airport Master Planning Process is a public process to develop a Capital Improvement Program (CIP) for each individual airport. The projects are then programmed in FAA's 5-year CIP. The projects are selected each year based upon safety needs, FAA priority, and funding capabilities. This funding is necessary to meet all mandated federal safety standards to operate a public-use airport.

Typical AIP projects included in this Capital Budget 2022/2023 request are as follows:

Runway Rehabilitation
Taxiway/Apron Rehabilitation
Airport Obstruction Removal/ Lighting
Land Acquisition/Easement Acquisition
Snow Removal Equipment Purchase
Master Planning and Environmental Studies
Statewide Airport Planning Projects
Airport Terminal Building Rehabilitation
Perimeter Safety/Security Fence
Airfield Pavement Maintenance

1. Why the project is necessary:

Federal funds provide at least 80% of the capital needs for eligible transit capital projects and the requested State Capital match will provide no more than 10% or ½ of the required match (whichever is less) and local funds will provide the remaining required match. State participation enables transit providers to leverage Federal capital funds for needed vehicle replacements and facility improvements that might not otherwise be available. Public transportation provides access to jobs and critical lifeline services for New Hampshire residents, promoting economic development and mobility for all citizens. Requested funds will be used to match formula apportioned funds and discretionary funds from the Federal Transit Administration grants programs including FTA Section 5339 Capital Bus & Bus Facilities Program funds and FTA Section 5310 Enhanced Mobility of Seniors & Individuals with Disabilities Formula Program funds. Without State Capital match, many transit projects would be delayed due to the inability to raise the required non-federal match on capital projects, which would only serve to increase the ongoing vehicle maintenance costs and perhaps impact, and degrade, the quality of transit services provided to the NH public.

2. What the project is replacing or adding on to:

The project will provide funding, to match Federal and local funds, to replace approximately 25 vehicles (primarily for Section 5310 Enhanced Mobility of Seniors & Individuals with Disabilities), miscellaneous intermodal infrastructure, and technological enhancements such as Automated Vehicle Location (AVL) systems and statewide transit software. These capital items would enhance the transportation network, maintain vehicles in a state of good repair, and help to ensure that intermodal infrastructure upgrades and improvements are considered.

3. A brief description of what the project includes

This request provides matching funds for: (1) the acquisition of approximately 25 vehicles for non-profit agencies that provide transportation for seniors and individuals with disabilities; and (2) the acquisition of intermodal infrastructure that may include bicycle & pedestrian infrastructure improvements (including bicycle racks, passenger shelters, wayfinding signage, curb cuts for improved accessibility) for 10 local public transit systems, state-owned bus terminal repairs and improvements, and capital expenses for statewide transit technology solutions that could be used by all 10 public transit systems (Manchester, Nashua, Dover-Portsmouth, Derry-Salem, Hanover-Lebanon, Concord, Claremont-Newport, Berlin-Lancaster-Littleton, Carroll County, and Keene).

4. Any back up information

Photos are attached to illustrate condition of vehicles to be replaced.

2022-2023 NHDOT Transit Capital Budget Request (Examples of Vehicle Conditions)



1. Why the project is necessary:

In accordance with New Hampshire statutes RSA Chapter 422 and Code of Administrative Rules Chapter Tra 900, all aircraft owned by New Hampshire residents and/or businesses must be registered annually with the Bureau of Aeronautics regardless of whether the aircraft is in flyable condition or is based or physically located in New Hampshire. The Bureau also registers Commercial Aviation Operators (Aviation Businesses at Airports), Aircraft Dealers and Airports. The aviation registration programs collect revenue to the state to support NH airports. The multiple registrations managed by the Bureau provide the necessary information and data to successfully manage the State Airways System (RSA 422:9).

2. What the project is replacing or adding on to:

The project will replace the Department's current aircraft registration program. The existing registration system was developed in 2001 and implemented in 2003. The registration software program has been used for almost 20-years since it was first developed and is at the end of its 20-year useful life.

3. A brief description of what the project includes:

The Development of Aviation Registration Management software for Aircraft Registration, Commercial Aviation Operators and Aircraft Dealers.

The aviation registration program collects revenue for the state to support airports and aviation programs in the State. The aviation registration provides additional benefit to the Department than just the collection of revenue. Data collected as part of the registration process is used by the Department for various regulatory needs and compliance and to successfully plan for airport development programs.

During the registration process, the aircraft owner designates an airport for the aircraft to be based and advises the Department of that location for the purposes of providing funding for the open-to-the public airports. The Bureau uses the based aircraft information to determine federal and state airport planning (airport master planning), development and funding for the airports. Based aircraft information is also used during airport inspections to update the FAA 5010 form (Airport Master Record) that provides the data and safety information for airports registered with the FAA. The data in this registration system is used to conduct compliance inspections at airports.

In the event of an aircraft accident or incident, the aircraft information collected during the registration process is used as part of the accident investigation, as well as determining whether that aircraft is in compliance with the State law.

4. Any back up information

During the 2018 legislative session, SB-565 was passed and signed by the Governor, changing the fee methodology to register aircraft in the state (RSA 422:31). The 2018 legislation changed the fee methodology to a weight based rate structure with associated fees. In an effort to attract more aircraft/businesses to the state, this change reduced the registration fees from approximately \$1M to \$400k. The registration program provides \$250K for the airports, based on a formula and where the aircraft are based. The remaining revenue collected is deposited into the general fund, approximately \$150K.

Due to the end of useful life of the software and the Legislative fee structure change, the software is in need of replacement. This aircraft registration software replacement will also make paying by credit card available and will be more interactive for the public. This project will have no effect on the State's utility consumption.

STATE OF NEW HAMPSHIRE
CAPITAL IMPROVEMENT PROJECT REQUEST
FISCAL YEARS 2022-2023

AGENCY	Department of Transportation
ACTIVITY / DIVISION	Operations

NAME

Priority #	Project Name	Funding Source				
		Agency Request			Governor	
		Federal	Highway	Total	Approved	Adjustment
1	Statewide - Construct Salt Sheds		1,200,000	1,200,000	1,700,000	500,000
2	Fuel Management System Replacement		5,000,000	5,000,000	5,000,000	0
3	Bridge Maintenance - Lancaster 701 Storage Building		475,000	475,000	595,000	120,000
4	Londonderry 512 - Replacement Patrol Shed Facility		3,370,000	3,370,000	6,750,000	3,380,000
5	Work Order System Phase 2		800,000	800,000	800,000	0
6	Mechanical Services - Twin Mtn Satellite Garage Roof Replacement		288,587	288,587	0	(288,587)
7	Pinkham 109 - Replacement Patrol Shed Facility (Design)		200,000	200,000	0	(200,000)
8	Milford 510 - Replacement Patrol Shed Facility (Design)		350,000	350,000	0	(350,000)
9	Mechanical Services - Lancaster New Satellite Garage (Design)		500,000	500,000	0	(500,000)
10	Statewide - Underground Fuel Tank Replacement		500,000	500,000	0	(500,000)
11						0
12						0
13						0
14						0
15						0
	Totals - Projects 1-15	0	12,683,587	12,683,587	14,845,000	2,161,413

Name: Victoria F. Sheehan

Title: Commissioner

Date: 2/26/2021

1. Why the project is necessary:

The department currently cannot store a season's worth of salt at all patrol shed locations and some sheds are reaching the end of their useful life, requiring significant maintenance to maintain function and safety. The ability to store ample salt will save funds by being able to purchase materials and store them when the best price is available. Environmental regulations also require that all salt be stored under cover.

The department's high arch gambrel design allows delivery of salt to generally occur within the shed due to high door opening, limiting the potential environmental impacts from salt operations. We are continuing to look at other styles of salt sheds and fabric structures to construct right size structures for each site.

2. What the project is replacing or adding on to:

The project will construct new stand-alone salt buildings at different patrol shed locations throughout the state. In most situations the existing buildings will be demolished to accommodate the new structures, however in some locations the existing structure may remain depending on site layout and condition of the structure.

3. A brief description of what the project includes

The project will include construction of stand-alone salt buildings (4,000 sf to 11,500 sf) with lean-to cold storage, sand storage and/or spreader rack bays on either side as additional alternates within the bidding process. The project will design and construct as many salt sheds as allowed by available funding while generally keeping with the following priority list:

- 1) D6 – North Hampton (612) – Shed is 32 years old, is under capacity and is structural deficient, in very poor condition.
- 2) D1 – Lincoln (115) – Shed is 37 years old, has a current capacity of 1650 tons. Annual usage is around 4380 tons. Showing structural deterioration, beginning to lean.
- 3) D2 – Lempster (215)– Shed is 39 years old, has a current capacity of 1400 tons, with an annual usage of 1700 tons. Shed is in deteriorated condition, needing frequent repair and heavy maintenance.
- 4) D5 – Londonderry (512)– Shed is 66 years old and in deteriorating condition, and aged design exposes the salt product to the elements.
- 5) D3 – Belmont (314) - Shed is 28 years old and current capacity is 2500 tons. Annual usage is around 2900 tons per year. Replacement is critical to maintain function due to an aging building that is starting to have structural issues.
- 6) D5 – Warner (526) – Shed is 19 years old and current capacity is 3000 tons. Annual usage is around 4700 tons per year.
- 7) D4 – Chesterfield (405A)– Shed is 44 years old and in very poor condition, current capacity is only 150 tons. This minimal capacity requires frequent restock in winter conditions.

4. Any back up information

Most recent bid results have shown total construction costs up to \$120 per sf for the departments standard High Arch Gambrel Salt building. Based on these numbers we would estimate anywhere from \$410,000 to \$960,000 for construction depending on the location, size of the building, and addition of side storage buildings.

Photo 1: North Hampton (612) – internal structure



Photo 2: North Hampton – front of left bay



Photo 3: North Hampton – Wall and post rot



Photo 4: Lincoln (115) – Salt Shed and Loading Ramp



1. Why the project is necessary:

The NHDOT Fuel Distribution System is the strategic fuel reserve for all of NH State Government.

The Statewide Fuel Distribution System's computerized fuel management system (FMS), originally supplied by Orpak USA, which is now Gilbarco/Gasboy is slated to be sunset by the company in the next few years. The target sunset date is 2022. The current FMS target discontinuance happens to coincide with the current contract coming to an end on June 30, 2022. The discontinuance will end all support, software and hardware, for the current system of 90 plus fuel sites statewide and the head office operations.

The fuel distribution system normally sees 4.5 to 5 million gallons of throughput per year, which requires a stable system to manage and maintain those volumes. Any disruption in the system will be problematic after discontinuance since the State owns the data, but not the operating system/application. Where this is proprietary software and hardware we will be hard-pressed to deal with any major breakdowns in the system.

2. What the project is replacing or adding on to:

This request is for the purpose of upgrading and updating the Department's computer software based Fuel Management System, and to include supplying new equipment at all fuel sites for the continuing mission of Fuel Distribution.

3. A brief description of what the project includes

The Department of Transportation seeks to procure services to provide and install a new Fuel Management System (FMS) that would include hardware, operating system, database, and proprietary fuel management software, to replace current components of a 15-year-old Fuel Distribution System.

The vendor will be responsible for all aspects of the project, including, but not limited to: design, development, installation, implementation, testing, training, and support of the automated Fuel Management System. Work includes site preparation and installation of fuel control terminals, modification, and configuration of tank level sensing equipment, and services to include software customization for the automated Fuel Management System and the development of new inbound and outbound interfaces with other State applications (DOT Data Warehouse).

The current existing Fuel Distribution System consists of hardware, software, fuel tanks, tank level sensing equipment, fuel pumps and piping, fuel control terminals, modems, and a central computer system running proprietary software that will no longer be supported due to the current vendor's intention of sun setting the application and hardware in 2022.

4. Any back up information

1. Project Need:

The wooden building that the Lancaster Bridge Maintenance Crew (701) uses for cold storage of their materials and some equipment has been in a deteriorated state for a number of years and has not been repaired due to the time and funds that would be diverted from the crew's bridge maintenance responsibilities. One sidewall of the building is in very poor shape due to age and deterioration. The foundation slab is broken into several sections and heaves such that it jams the sliding doors used to access the garage bay portion of the building. The crew is presently not allowed to store anything in the attic area due to safety concerns. The roof has been repaired at various times to stop leakage. The building is a former patrol shed and the inside is cut up into several rooms that are not conducive to easy movements of materials beyond the garage bays. The need for repairs, especially to the one sidewall of the building, foundation slab, and doors cannot be delayed much longer. Even with repairs, the useful life of the building is limited.

2. What the project is replacing or adding to:

This project proposes to remove the 50' x 35' existing wooden building and its foundation slab and replace it with a 30' x 60' steel building on a concrete slab.

3. A brief description of what the project includes:

The project will include the demolition of the existing building and the construction of a new foundation, slab, and pre-engineered steel building. The building will have lockable overhead doors for secure storage of materials and equipment. The space inside the building will be much more conducive for material storage and will allow smaller equipment such as air compressors and Bobcat attachments to be stored out of the weather. The estimated cost of removal of the existing building is \$20,000 based off of Berlin 12598G costs and the estimated cost of the new building, construction, and utility hookup is \$455,000. The total cost is estimated to be \$475,000.

4. Supporting documentation: Attached are pictures showing the existing wooden building and an example of the proposed replacement building.



Figure 1: Front View of Building



Figure 2: Sidewall in Poor Shape

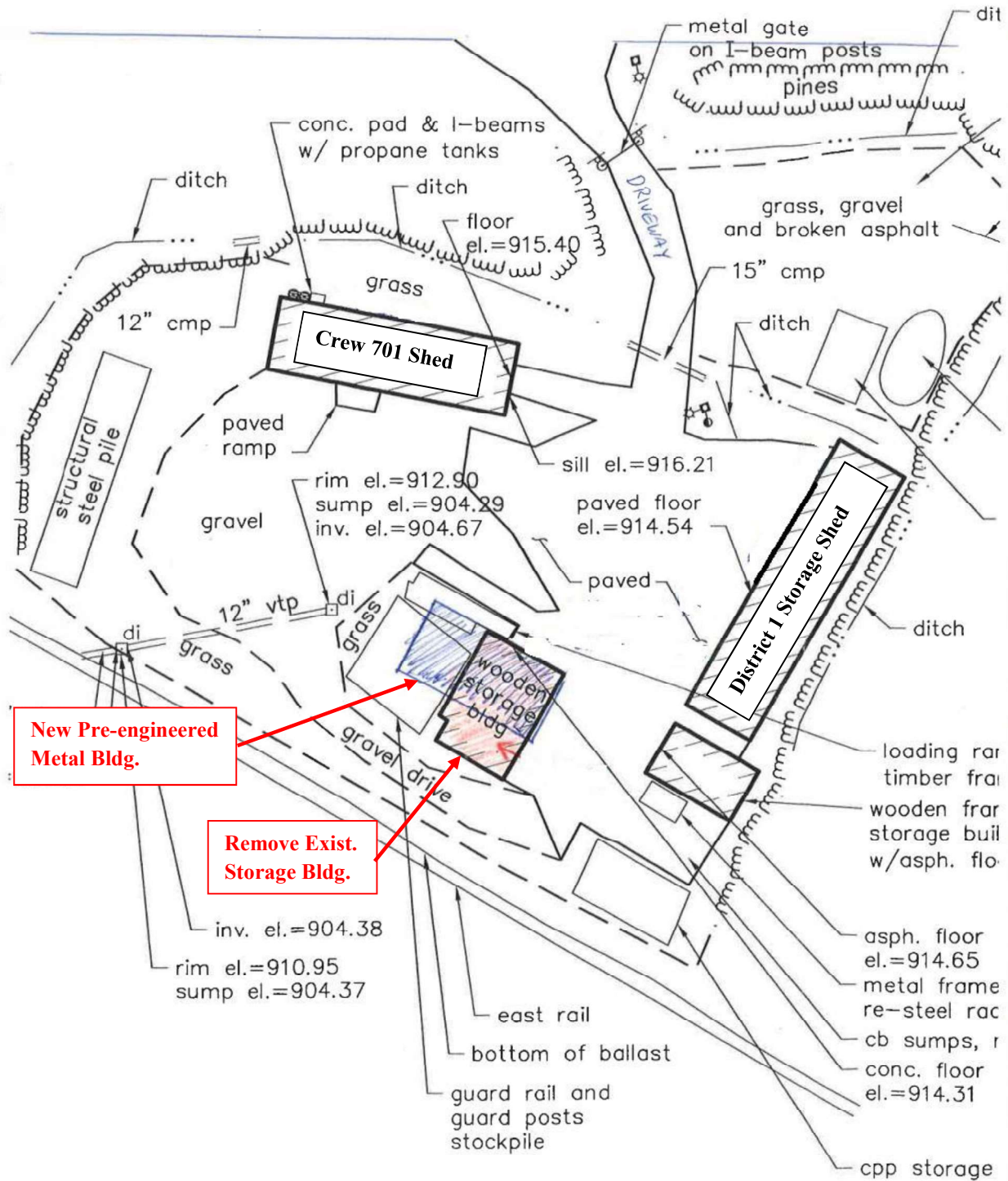


Figure 3: Close up of Sidewall (Exterior)



Figure 4: Inside of Sidewall

MIDDLE STREET



New Pre-engineered Metal Bldg.

Remove Exist. Storage Bldg.

1. Why the project is necessary:

The existing PS512 Londonderry facility is undersized to meet level of service requirements especially given the I-93 Expansion project. The current facility is not capable of storing current maintenance vehicles. The current facility does not meet modern building codes, is obsolete, and unsafe for State employees. The proposed new facility can be sited on the existing property. Utility and computer system upgrades are included

2. What the project is replacing or adding on to:

This project will construct a new right-sized facility that will include crew quarters, bathrooms, foremen office, and vehicle storage bays for trucks. The crew currently includes 5 full-time NH DOT District 5 employees which are supplemented for winter maintenance by up to 1 temporary NH DOT borrowed employee, and up to 8 hired trucks with an operator. The current facility is too small to allow for crew members to take a break without using space not intended for that purpose (includes foreman office and bathroom). The current facility has one bathroom which is not adequate for the regular crew size, and especially in the winter. Currently the foreman uses a portion of the crew quarters as an office which is not secure or conducive for employee relations.

The facility roof was leaking on the southern exposure side. This was remedied by a roof repair by a statewide contractor by placing a rubber membrane over the entire roof. This temporary repair completed in 2018 and with a possible design life of up to 5-years.

In the winter, 2 plow trucks can be stored inside without plow equipment. The facility is scheduled to add an employee and another truck to the patrol section which will have to be stored outside and any borrowed retained truck also stored outside. Trucks equipped with dry rock salt pre-wet systems can freeze-up when stored outside. Newer plow trucks equipped with vehicle emissions controls can also have temperature related issues if not stored in an above freezing environment.

3. A brief description of what the project includes:

The project will include an 80-ft. by 100-ft. building that meets current building code requirements. Architectural/engineering analyses will define the building dimensions and utility accommodations (water, sewer, broadband cable, natural gas) similar to recent replacement NH DOT Highway Maintenance Facilities.

No spreader storage buildings, or fuel dispensing improvement are currently proposed.

4. Any back up information

Attached are recent photographs of the existing facility for reference.



PS512 Londonderry Perspective View Looking East and West



PS512 Londonderry Salt Shed

1. Why the project is necessary:

- a. The State of New Hampshire has invested tens of billions of dollars in transportation assets. In order to get the most out of this major investment the DOT needs a modern and efficient means to track future, current and past maintenance efforts for assets such as bridges, culverts and guardrail. Similar to a well-maintained car, transportation assets that are well maintained will last longer and will have improved safety and reliability during their useful lives. Phase two of the software will build-on the benefits of Phase 1 and focus on technology enhancements, field mobility, and real time data availability.

2. What the project is replacing or adding on to:

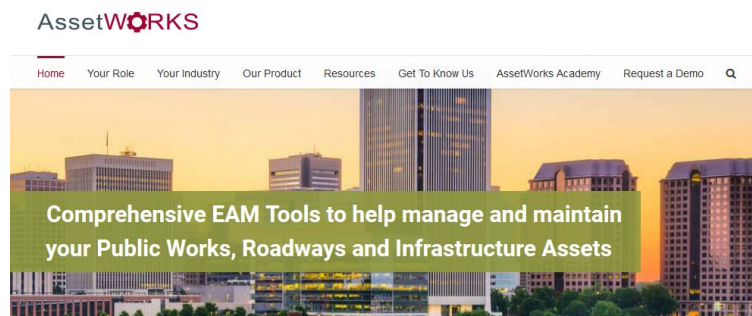
- a. It is a continuation of the Work Order, Fleet and Inventory (WOFI) system Contract # 7002910, Project # 42294
- b. WOFI is replacing legacy systems including MATS, CIMS, HEI, M5 and a variety of additional Access and Excel inventory and work effort tracking methods.

3. A brief description of what the project includes

- a. Provide Mobile devices and connectivity across the Department’s 100+ permanent field locations to enable easy and efficient access to the system
- b. Provide additional contracted resources to assist with the implementation of the system
- c. Enhanced integration with a real-time data hub enabling deeper integration with real-time systems and preparing for future integrations.

4. Any back up information (include pictures or any other information that tells your story)

- a. [AssetWork EAM Web Site](#)



One GIS-centric Enterprise Asset Management (EAM) system designed for your community.



Highway Additional Funding Needs for Prior Capital Budget Requests

**State of New Hampshire
Department of Transportation
Highway Additional Funding Needs for Prior Capital Budget Requests**

HB25 Section and Line #	State AU	Description and Original Year Authorized	Initial Appropriation	Available Appropriation remaining at 2/28/2021	Project Status / % Complete	Anticipated Project End Date	Addition Requested	Amended Appropriation Request
14.161 pg.17	1345	19-146:2IIB - Manchester Patrol Shed (527) additions/renovations	2,100,000	2,100,000	0%	August 2022	\$ 1,000,000	\$ 3,100,000
<p>This appropriation is for design and construction services for the Manchester Patrol Shed. Design has recently been approved to continue and had been delayed due to COVID19 and financial priorities. The project was advertised in 2020 prior to COVID and had to be put on hold. Bids received significantly exceeded the budget and Public Works has indicated that current costs are anticipated to be 10%-20% higher, therefore we are requesting an increase of \$1,000,000 to appropriately fund the anticipated costs of this project.</p>								

14.165 pg.18	1349	19-146:2IIF - Lancaster District Office - Addition	760,000	663,070	10%	December 2022	450,000	\$ 1,210,000
<p>Design and construction work was recently approved to advance but was delayed due to COVID19 restrictions and funding priorities. The project includes an additional 1,500 sq ft of office space for training and compliance with ADA requirements. Project will address State Fire Marshall Office comments and will advertise for construction once design is complete. Design estimates from Public Works prior to COVID exceeded the budget and Public Works has indicated that current costs are anticipated to be 10%-20% higher, therefore we are requesting an increase of \$450,000 to appropriately fund the anticipated costs of this project.</p>								

14.177 pg.18	1685	Dixville Patrol Shed Facilities (2017, 228:2, II, E)	1,400,000	1,188,966	13%	November 2022	700,000	\$ 2,100,000
<p>This appropriation is for design and construction of a new patrol shed for Dixville on a property acquired by DOT from the Balsams. The project has bid twice, and was put on hold due to COVID19 restrictions and funding priorities. Design will need to be revisited to meet all regulatory items and address State Fire Marshall Office comments. Bids received significantly exceeded the budget and Public Works has indicated that current costs are anticipated to be 10%-20% higher, therefore we are requesting an increase of \$700,000 to appropriately fund the anticipated costs of this project.</p>								

Subtotal \$ 4,260,000

2,150,000 \$ 6,410,000

FY22-23 Capital Budget Requested Reduction			Initial Appropriation				Reduction Requested	Amended Appropriation Request
2:l.1 pg.5		Fuel Management System Replacement	5,000,000				(1,000,000)	\$ 4,000,000

Net Change Requested \$ 1,150,000

Highway Capital Budget Unfunded Additional Needs

1. Why the project is necessary:

The existing structure was constructed in 1969. The existing aluminum roof was designed with 2" of insulation. This design depends on heat loss to melt any accumulated snow/ice to reduce weight and is extremely dangerous as snow and ice slides off in sheets. The snow and ice sheet have caused damage to the building and is a serious safety issue. Energy efficiencies will be realized as a new roof will be better insulated.

2. What the project is replacing or adding on to:

The project will replace the existing roof and add to the supporting structure to support a snow/ice load.

3. A brief description of what the project includes

The project will include design & construction of a new roofing system at the Twin Mountain satellite garage building (approx. 6,120 sf).

4. Any back up information

Estimated costs were obtained via Public Works:

"...Regarding the metal roof, this can be tricky because it depends on the condition/capacity of the roof framing and whether you are installing a whole system (i.e., including insulation) or just the metal. We recently installed an insulated metal panel roofing system at the Men's Prison and it came in at \$37.50/SF. This is on the high side because it involves work within the prison so the cost is inflated to account for the difficulties of working behind the walls. So, I would say that a whole metal roofing system, including insulation, would be around \$30/sf, installed. Just the metal roofing, no insulation, would be around \$20/sf, installed..." ~ Michelle Juliano

"If you add 10% to your 2018 request (5% per year for inflation from 2018 to 2020), that should give you a conservative number for your new request. Thanks for reaching out" ~Michelle Juliano 2/12/2020

Project estimate total: \$259,000



1. Why the project is necessary:

The proposed project includes the design and permitting for a highway maintenance facility to replace the existing structure that is over 90 years old. The existing PS109 – Pinkham highway maintenance facility is undersized for current operations. In addition, the current facility does not meet modern building codes, electrical codes, or mechanical codes. This makes the facility a possible risk to life and safety for the state employees that occupy the building.

The existing structure is too small to safely and efficiently accommodate the highway maintenance vehicles and equipment that are needed to meet the current level of service in this area. A new facility could be sited on the property and be designed to improve the safety and efficiency of highway maintenance operations as well as to allow for utility, energy conservation and computer system upgrades.

2. What the project is replacing or adding on to:

This existing facility is over 90-years old and is under 3,000 square feet with very limited crew quarters in the current configuration. The current facility is too small to accommodate crew members to take safety breaks during winter storms and does not provide adequate office space for the foreman, which is not conducive for employee relations. The existing wastewater disposal system is currently in failure and needs to be replaced.

In the winter, trucks outfitted with plows and salt spreaders barely fit into the garage area and when they are in the garage they restrict worker circulation within the building. Currently, there are two trucks at this facility, and one truck must be parked outside in the weather when it is outfitted with the head plow. The tight space with equipment in the garage is a safety concern and increases the potential for accidents when taking equipment in or out of the building. Newer plow trucks equipped with vehicle emissions controls can also have temperature related issues if not stored in an above freezing environment.

3. A brief description of what the project includes

This project includes the design and permitting for a new structure that will be right-sized and approximately 5,000 square feet in size. This project will include architectural design of the new facility as well as structural and civil site plans. Architectural and engineering analyses will be needed to define the building dimensions, layout and utility accommodations.

We envision the new facility will be designed to meet all modern code requirements and include a crew quarters, restrooms, foreman office and adequate space for storage of vehicles, equipment, tools and supplies that are kept onsite.

Over recent years, the facility has received a new fueling station, salt storage shed and spreader storage building and therefore the project will not include provisions for these aspects.

4. Any back up information (include pictures or any other information that tells your story)



Photo-1: Front view of existing patrol shed. Garage doors are in need of replacement and are undersized to safely accommodate the vehicles and equipment.



Photo-2: Rear view of existing patrol shed. Siding and building trim in need of replacement. Also, shed end of roof is too low for building extension to increase storage or headroom inside the building.



Photo-3: View of the front of truck with plow equipment mounted and parked in shed. Minimal clearances and uneven surfaces throughout the building make it difficult to navigate and increase risk of accidents and injuries.



1. Why the project is necessary:

The existing PS510 Milford facility was originally built in 1939 and is showing its age being undersized to meet level of service requirements. Current facility is not capable of storing maintenance vehicles. Current facility does not meet modern building codes, is obsolete, and unsafe for State employees. The proposed new facility can be sited on the existing property. Utility and computer system upgrades are included. This project request is for design of the new facility. Construction funding will need to be appropriated with a request at a later date.

2. What the project is replacing or adding on to:

This project will design a new right-sized facility that will include crew quarters, bathrooms, foremen office, and vehicle storage bays for trucks. The crew currently includes 6 full-time NH DOT District 5 employees which are supplemented for winter maintenance by up to 8 hired trucks with operators. The current facility is too small to allow for crew members to take a break without using space not intended for that purpose (includes foreman office). The current facility has one bathroom which is not adequate for the regular crew size, and especially in the winter. Currently the foreman uses a portion the crew quarters as an office which is not secure or conducive for employee relations.

The overhead door clearance had to be modified (cut down) to allow for plow trucks and a front end loader to be able to access the facility. The facility is heated with an oil-fired hot air furnace located in a garage bay violating NFPA Life Safety codes.

In the winter, 2 plow trucks can be stored inside with plow equipment however, this reduces access around the truck for preventative vehicle maintenance. Trucks equipped with dry rock salt pre-wet systems can freeze-up when stored outside. Newer plow trucks equipped with vehicle emissions controls can also have temperature related issues if not stored in an above freezing environment. The current facility stores 2 trucks inside, along with the loader, leaving up to 8 hired trucks being parked outside in the weather.

3. A brief description of what the project includes:

The project will include an 80-ft. by 100-ft. building that meets current building code requirements. Architectural/engineering analyses will define the building dimensions and utility accommodations (water, sewer, and broadband cable) similar to recent replacement NH DOT Highway Maintenance Facilities.

No salt storage or spreader storage buildings, or fuel dispensing improvements are currently proposed.

4. Any back up information

Attached are recent photographs of the existing facility for reference.



PS510 Milford Perspective View Looking North East



PS510 Milford View Looking South East



PS510 Milford Interior View of Bays for 2 State Trucks with no plow equipment

1. Why the project is necessary:

The existing structure was constructed in 1981. The layout of the building is obsolete, potentially unsafe lacking the ability to lift fleet units in the air, thus employing a "pit" that allows the employees access to the underside of heavy fleet units without having to use crawlers. The building only has two access doors so fleet vehicles have to be "stacked" having the job taking longer parked deeper so that the shorter job can get out of the bay. Each mechanic should have their own overhead door to prevent this hardship. The building is too small and the ceiling too low for tools and equipment that provide for additional safety and ergonomic benefits such tire cages, mobile lifts, Aquarius wash machines, etc. The building is also too small for additional requirements placed on the stockroom associated with an increasingly diversified fleet. In addition, DEF fluid now required to operate diesel engines is being ordered by the pallet and taking vast amounts of space. The crane would also be stored inside and not require moving to give employees room to work.

The new building will contain a wash bay that provides additional fleet longevity & environmental improvements. The existing Lancaster campus does not support land needed to build a new facility, so land will need to be purchased. \$150K is also needed for equipment including a new mobile lift system, Mohawk lift system & overhead crane system.

2. What the project is replacing or adding on to:

The project will construct new satellite garage building. The existing building can be demolished or the existing structure may remain and offered to Bridge Maintenance or Highway Maintenance.

3. A brief description of what the project includes

The project will include design & construction of stand-alone satellite garage building (16,000 sf) with an optional wash bay. The site would have to be determined and purchased as I've been led to believe the existing District Office location does not have available land to support the construction of a new facility. The availability of Town sewer & water is unknown, but would be very beneficial if we decide to construct an attached wash bay.

4. Any back up information

Estimated costs were obtained via Public Works:

"I've attached instructions for estimating that DAS sends to all agencies for their use in capital project requests. The document gives a range for SF costs of maintenance facilities. I would use \$225/SF for your facility." ~Michelle Juliano 2/22/2018

"If you add 10% to your 2018 request (5% per year for inflation from 2018 to 2020), that should give you a conservative number for your new request. Thanks for reaching out"
~Michelle Juliano 2/12/2020

I used \$300/sf included in the budget instructions plus 7.5% contingency @ 10% plus engineering/construction oversight and land acquisition.

Project estimate total: \$5.9 million



1. Why the project is necessary:

The NHDOT Fuel Distribution System is the Strategic Fuel Reserve for all of NH State Government.

The NH Department of Transportation currently has 40 fuel sites that have underground storage tanks and appurtenances that are 25 years or older. As the sites get beyond the warranty and life expectancy of the tanks and components, the potential for environmental issues and extensive repairs increases considerably. Prior Capital Improvement Projects (CIP) provided funding to bring many sites into environmental compliance; this CIP request continues that effort to replace the oldest and highest risk sites and to make structural improvements to sites near mid-life to prolong those sites' life span and to minimize potential environmental issues.

It is difficult and costly to assess condition of Underground Storage Tanks while sites are in operation and condition can vary greatly based on many factors over the life of the tank. DOT has had a tank fail around 20-years and other tanks removed around 25-years of age showing some corrosion that can lead to failure. The sites proposed for replacement will all be nearly or over 30-years old at the proposed time of replacement.

2. What the project is replacing or adding on to:

The project will continue the recapitalization plan of the existing fuel system by reconstructing new fuel sites at different patrol shed locations throughout the state. In most situations the existing fuel site will be removed to accommodate the new tank(s) and appurtenances.

3. A brief description of what the project includes

The project will include reconstruction of single product (diesel) and two product (unleaded and diesel) fuel sites. The desire is to reconstruct as many fuel sites as allowed by available funding, beginning in State Fiscal Year (SFY) 2022 and extending for 4-6 years while generally keeping with the following priority list*:

- FS 403 – Marlow – 34 Years Old (install split tank)
- FS 201 – Orford – 35 Years Old
- FS 408 – Hancock – 33 Years Old (install split tank)
- FS 203 – Rumney – 34 Years Old
- FS 108 – Jefferson – 33 Years Old
- FS 212 – Cornish – 34 Years Old
- FS 214 – New London – 27 Years Old
- FS 303 – Freedom – 35 Years Old
- FS 1131 – Glen/Bartlett – 31 Years Old (install split tank)

*Age shown for sites above is the age at the proposed time of replacement

4. Any back up information (include pictures or any other information that tells your story)

Photo 1: Marlow



Photo 2: Orford

