I-95 Rappahannock River Crossing - Northbound
From Exit 130 (Route 3)
To Exit 133 (Route 17)

Initial Financial Plan
April 30, 2020

VDOT
Virginia Department of Transportation

State Project Number(s):
0095-111-270, P101, R201, C501, B608, B609, D605, D606;
0095-111, P101
UPC(s): 105510, 113936

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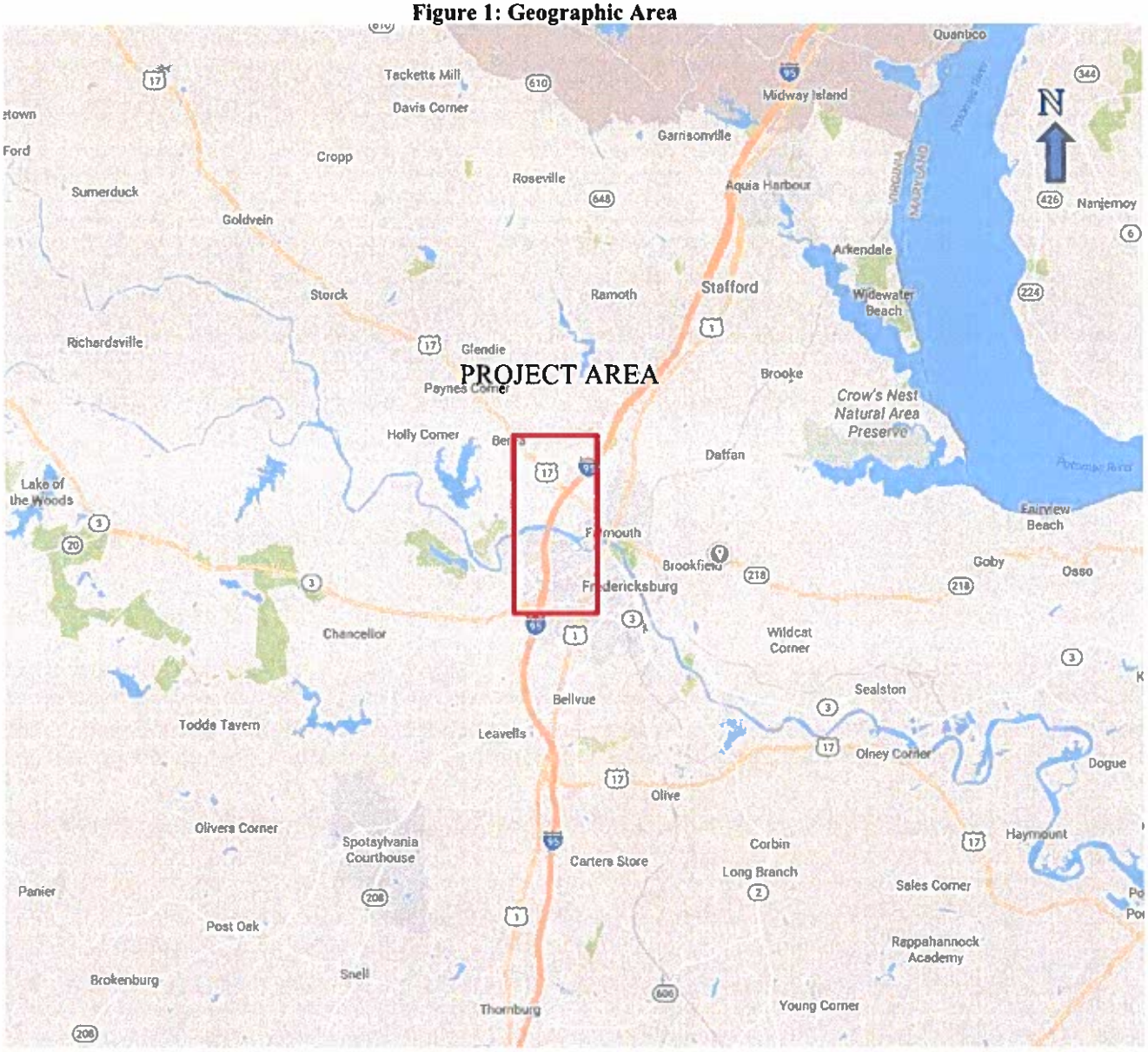
1. PROJECT DESCRIPTION

The I-95 Rappahannock River Crossing – Northbound project is located along I-95 northbound between mile marker 133 in Stafford County and mile marker 130 in the City of Fredericksburg. Figure 1 shows the general geographic area of the project.

Figure 1: Geographic Area



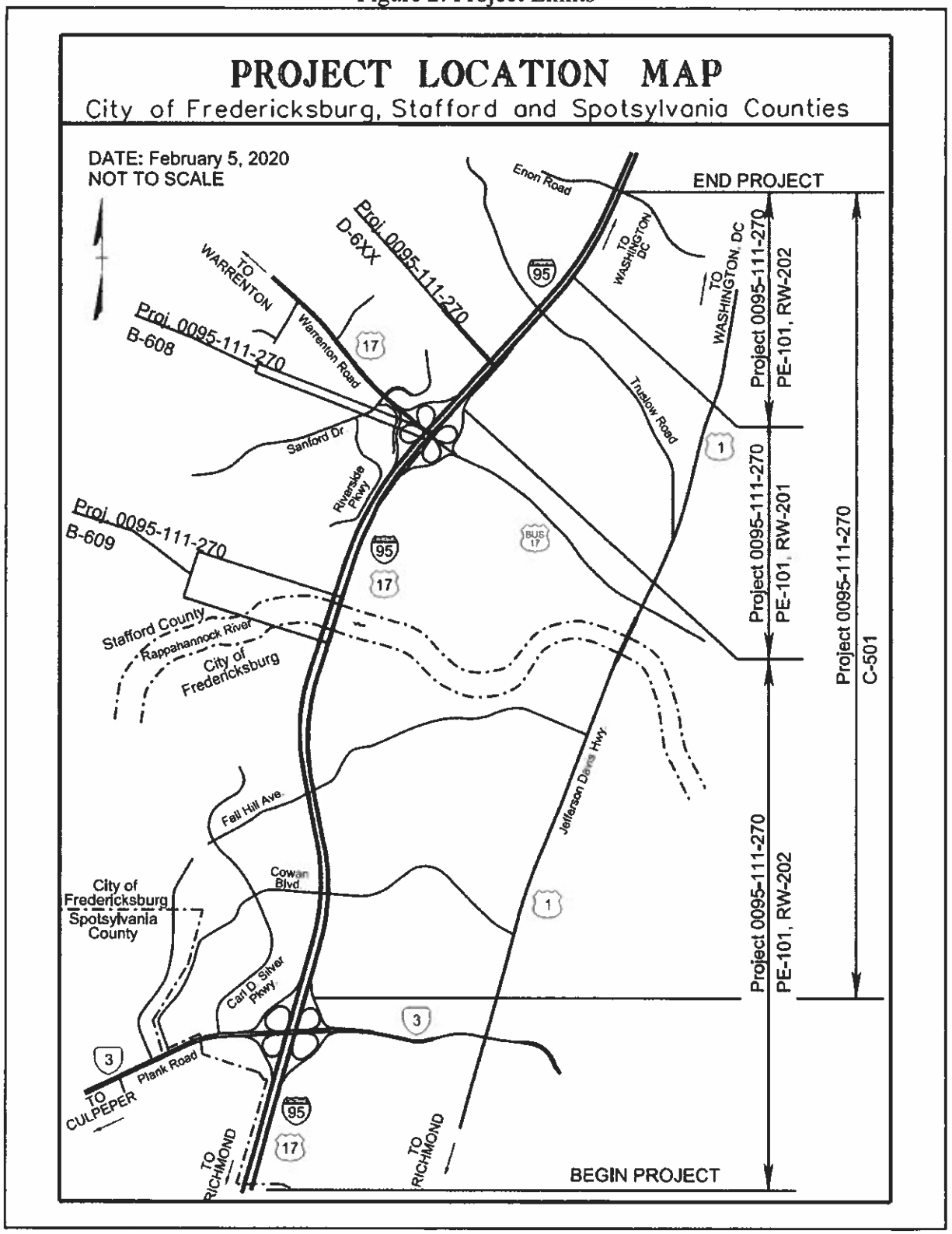
The project will construct approximately four miles of additional lanes parallel to Interstate 95 northbound from Exit 130 (Route 3) in the City of Fredericksburg to Exit 133 (Route 17) in Stafford County. A new bridge over the Rappahannock River will be built to carry the general

purpose traffic lanes. It will be built parallel to the existing I-95 northbound bridge. This project is the companion project to the I-95 Southbound River Crossing project. The project seeks to reduce congestion on I-95 by providing local traffic with an additional route to travel between Route 17 and Route 3 without merging into the interstate's general purpose lanes. Traffic traveling north on I-95 will remain on the general purpose lanes. Traffic entering I-95 from Exit 130 (Route 3) and Exit 133 (Route 17) will enter dedicated collector-distributor (CD) lanes. Traffic from the Route 3 and Route 17 exits will use the CD lanes exclusively until north of Exit 133 before merging back into the general purpose lanes. The northbound CD lane will also have a direct connection to the Fredericksburg Extension of the Express Lanes to aid with uninterrupted access for local traffic from Route 3 and Route 17 when the Express Lanes are north-facing. The project will also include minor improvements at Exit 133 (Route 17) interchange. Due to budget constraints, a number of scope elements have been included in the procurement as bid options. These scope elements include replacement of the existing CD lane bridge over Route 17, providing pedestrian improvements under the bridge connecting the east and west sides of the interchange, and extending an auxiliary lane north of Exit 133 (Route 17) to Exit 136 (Centreport Parkway). The bid options will be included in the contract upon receipt of price proposals, pending price.

The overall project has the following 2 UPCs associated with it:

1. 105510 - I-95 Rappahannock River Crossing - Northbound
2. 113936 – NB Rappahannock River Crossing – Advance Activities - PE Only

Figure 2: Project Limits



Environmental Summary
The environmental study for the project includes both the southbound and northbound River Crossing projects. The Federal Highway Administration (FHWA) concurred with an Environmental Assessment (EA) level National Environmental Policy Act (NEPA) document on January 10, 2014. FHWA approved a Draft EA on June 8, 2015 for public availability. After public input and minor revisions to the EA, FHWA issued a Finding of No Significant Impacts on November 17, 2015. A Re-evaluation of the Environmental Assessment (EA) was approved by the FHWA on December 4, 2018.

A Design Public Hearing was held for the I-95 Rappahannock River Crossing – Northbound project on August 22, 2019.

VDOT received FHWA's approval of the IMR on November 6, 2019.

Project Website
Additional information can be found on the Project website, which may be accessed on VDOT's external website.
http://www.virginiadot.org/projects/fredericksburg/i-95_southbound_rappahannock_river_crossing.asp

The website includes:

- General project information
- Cost & schedule information
- Traffic alerts regarding work zones & lane closures
- Public outreach information
- Key personnel contact information

2. SCHEDULE

Project Schedule

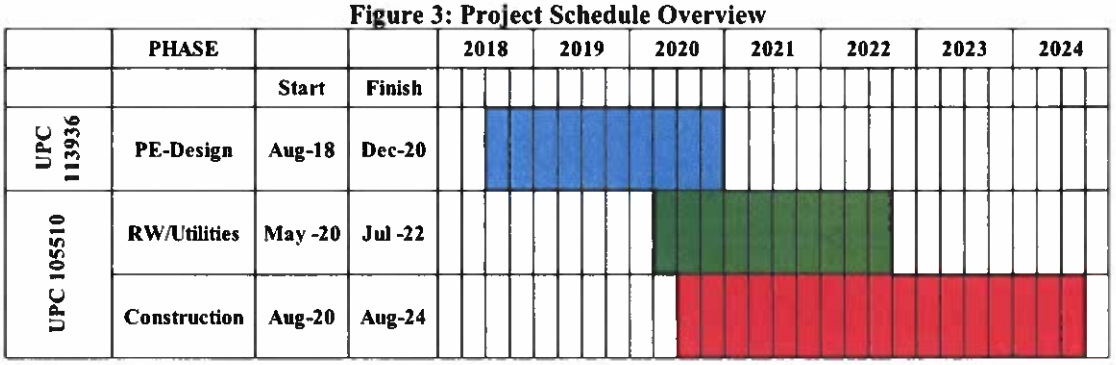
Project development efforts for the I-95 Rappahannock River Crossing Northbound project began in August 2018. Much of the environmental document effort was completed in conjunction with the southbound project. The design-build procurement is wrapping up, with price proposals due the end of March 2020. The design-build contract is anticipated to be awarded by the Commonwealth Transportation Board at their May 2020 meeting.

Milestone dates for the design-build contract are as follows:

- Interim milestone (work relating to Fred Ex Overlap): October 29, 2021
    - $630,000 incentive if complete 45 days early
- Right of way efforts for this work are set for completion by VDOT by October 2020

- Final Completion for the project: August 30, 2024

Figure 3: Project Schedule Overview



3. PROJECT COST

UPC 113936: The current total project cost estimate is $5,000,000. This project cost covers preliminary design activities only. This UPC was established to advance the project development efforts. The estimate for project development efforts was developed based on hours to complete specific tasks and rates for appropriate design professionals, both internal to VDOT and consultants. Activities included traffic data collection and analysis, survey, geotechnical investigations, environmental services, roadway and traffic engineering services. The data collected and documents developed were used for the design-build procurement.

UPC 105510: The current total project cost estimate is $127,000,000. This project cost covers right of way and construction of the scope elements described in Section 1. The right of way estimate was developed based on the RFP plan set. Tax assessment and appraisal information was used to estimate real estate values. Cost increments for condemnations, relocations, and administrative costs were based on regional information. An estimated construction cost for the design-build contract was developed using the RFP plans developed for the project. Unit costs were based on similar projects, statewide averages, or adjusted to meet the complexities and market conditions of this project. Lump sum costs were used for some major items of work. The fixed amount of the design-build contract will be lump sum, with payments based upon the Project physical percent of completion. The construction estimate went through a rigorous review process involving consultants, District and Central Office VDOT staff.

Tables 1.1 and Table 1.2 include the current estimates of the projects and the remaining cost-to-complete in year-of-expenditure dollars. The tables depict the project expenditures as of January 31, 2020.

Table 1.1: Project Cost Estimate for UPC 113936

Phase	Estimate	Expenditures as of 01/31/2020	Balance to Complete
PE	$5,000,000	$2,853,168	$2,146,832
Right of Way	$0	$0	$0
Construction	$0	$0	$0
Total	**$5,000,000**	**$2,853,168**	**$2,146,832**

Table 1.2: Project Cost Estimate for UPC 105510

Phase	Estimate	Expenditures as of 01/31/2020	Balance to Complete
PE	$0	$0	$0
Right of Way	$4,000,000	$0	$4,000,000
Construction	$123,000,000	$0	$123,000,000
Total	**$127,000,000**	**$0**	**$127,000,000**

4. PROJECT FUNDS

The I-95 Rappahannock River Crossing Northbound project is funded through a combination of federal, state and private funding sources. These funding sources include federal funds through the Atlantic Gateway grant, state funds through the priority transportation fund, and private funds through a concession payment as part of the Fredericksburg Express Lanes Extension agreement. A small amount of federal funding from the Fredericksburg Area Metropolitan Planning Organization is also allocated to the project. The majority of the project funding has already been programmed to the project. No cash flow issues are anticipated. Table 2.1 and Table 2.2 outline the specific funding sources for each UPC.

Table 2.1: Summary of Project Funding by Source (UPC113936)

Source	Through FY20	FY21	FY22	FY23	FY24	FY25	Total
State Sources							
Priority Transportation Funds	$5,000,000						$5,000,000
TOTAL	$5,000,000						**$5,000,000**

Table 2.2: Summary of Project Funding by Source (UPC 105510)

Source	Through FY20	FY21	FY22	FY23	FY24	FY25	Total
Federal Sources							
MAP21 NHPP	$9,680,108						$9,680,108
MAP21 NHPP RSTP	$0	$400,000	$480,000	$720,000			$1,600,000
MAP21 NHPP STP	$7,966,814						$7,966,814
Other							
Concession Funds	$45,000,000						$45,000,000
State Sources							
MAP21 NHPP RSTP Match		$100,000	$120,000	$180,000			$400,000
Bond Proceeds	$30,636,400						$30,636,400
Priority Transportation Funds	$31,716,678						$31,716,678
TOTAL	$125,000,000	$500,000	$600,000	$900,000			**$127,000,000**

Project funding is demonstrated in the Fredericksburg Area Metropolitan Planning Organization's (FAMPO) Long Range Transportation Plan and Transportation Improvement Program (TIP), as well as the Commonwealth's Statewide Transportation Program (STIP). UPC 105510 was included in the FAMPO FY18-21 adopted May 15, 2017, updated February 25, 2020. The FAMPO amended its TIP on July 16, 2018 to include $5,000,000 for the preliminary engineering phase of this project. FY18STIP Amendment 16 as subsequently approved by FHWA on August 2, 2018, added the preliminary engineering phase and associated funding to the Commonwealth's STIP.

UPC 113936: Preliminary engineering was authorized by FHWA on August 23, 2018 under federal project number 0952539.

UPC 105510: Right of Way and Construction were authorized by FHWA on September 16, 2019 under federal project number 0952545.

There are a number of federal authorizations associated with UPC's 113936 and 105510, as summarized in Table 3 below:

Table 3: Project Authorization Summary as of January 31, 2020

Federal Project	UPC(s)	Phase Classification	Cost	Federal Funds	Advance Construction
952539	113936	PE	$5,000,000	$0	$4,000,000
952545	105510	RW	$4,000,000	$2,322,030	$1,677,971
952545	105510	CN	$8,562,762	$8,562,762	$0
952545	105510	CN	$114,437,238	$6,672,131	$107,675,107
Total			$132,000,000	$17,556,923	$113,353,078

5. FINANCING ISSUES

The majority of the project funding for I-95 Rappahannock River Crossing Northbound project is a combination of federal, state and private funding sources. The project has funding sources identified to fully fund the project.

6. CASH FLOW

I-95 Rappahannock River Crossing Northbound project annual cash flow analysis is reflected in Tables 4.1 and 4.2. It shows the comparison of previously expended and projected expenditures by fiscal year by phase against the total annual allocations. The majority of the funding for the project has been previously allocated. No cash flow issues are anticipated.

Table 4.1: Cash Flow Analysis –UPC 113936

Expenditures	Through FY20	FY21	FY22	FY 23	FY24	FY25	Total
PE	$3,903,168	$1,096,832					$5,000,000
Total Annual Expenditures	$3,903,168	$1,096,832					$5,000,000
Cumulative Expenditures	**$3,903,168**	**$5,000,000**					
Total Annual Allocations	$5,000,000	$0					$5,000,000
Cumulative Allocations	**$5,000,000**	**$5,000,000**					
Cumulative Allocation Surplus (Deficit)	**$1,096,832**	**$0**					**$0**

Table 4.2: Cash Flow Analysis –UPC 105510

Expenditures	Through FY20	FY 21	FY 22	FY 23	FY 24	FY25	Total
Right of Way	$0	$1,520,000	$1,404,000	$701,000			$3,625,000
Construction	$0	$22,277,380	$34,125,420	$35,008,230	$28,755,350	$3,208,620	$123,375,000
Total Annual Expenditures	$0	$23,797,380	$35,529,420	$35,709,230	$28,755,350	$3,208,620	$127,000,000
Cumulative Expenditures	**$0**	**$23,797,380**	**$59,326,800**	**$95,036,030**	**$123,791,380**	**$127,000,000**	$127,000,000
Total Annual Allocations	$125,000,000	$500,000	$600,000	$900,000	$0	$0	$127,000,000
Cumulative Allocations	**$125,000,000**	**$125,500,000**	**$126,100,000**	**$127,000,000**	**$127,000,000**	**$127,000,000**	$127,000,000
Cumulative Allocation Surplus (Deficit)	**$125,000,000**	**$101,702,620**	**$66,773,200**	**$31,963,970**	**$3,208,620**	**$0**	**$0**

7. P3 ASSESSMENT

This project is not a candidate for delivery via the Public Private Transportation Act (PPTA). The project does not offer an acceptable payback to a private concessionaire. The project is being procured through a design-build process and is funded with a combination of federal, state, and a one-time concession payment (private funding).

8. RISK AND RESPONSE STRATEGIES

A Risk Management meeting was held on February 8, 2019 and the Final Risk Management Report was published. The report was a record of the outcome of discussions on the various risk components and the mitigation strategies associated with this project. Fifty risk factors and mitigation strategies were identified, of which 16 were identified as moderate and three as significant. The significant project risks were:

- Pricing/market saturation
- Construction methods for the bridge over the Rappahannock River
- Fred Ex Overlap

Mitigation strategies identified include the following:

- Rigorous estimate review/monitoring of industry trends
- Contingencies
- Interim milestone incentives, advance plan development & right of way acquisition in overlap area prior to design-build contract award

The full Risk Management Report can be found within the project files.

9. ANNUAL UPDATE CYCLE

The submission date of the Initial Financial Plan is April 30, 2020. The first annual update will be submitted by April 30, 2021 and will be based on a "data as of" date of January 31, 2021.