

Route 7 Corridor Improvements Project Financial Plan Annual Update

July 31, 2023

State Project Numbers: 0007-029-942, P101, R201, C501, B610, B606, D608 0007-029-225, P101, R201, C501, D607, B634, B636 UPC Numbers: 99478 and 106917

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## **Executive Summary**

This Design-Build project serves to increase capacity on a highly congested segment of Route 7 in Fairfax County. This project includes the construction of the last segment of Route 7 to make three lanes each way from I-495 to Leesburg. The project will construct an additional through lane approximately 6.9 miles in both directions of Route 7 from Reston Parkway and the Dulles Toll Road (Route 267).

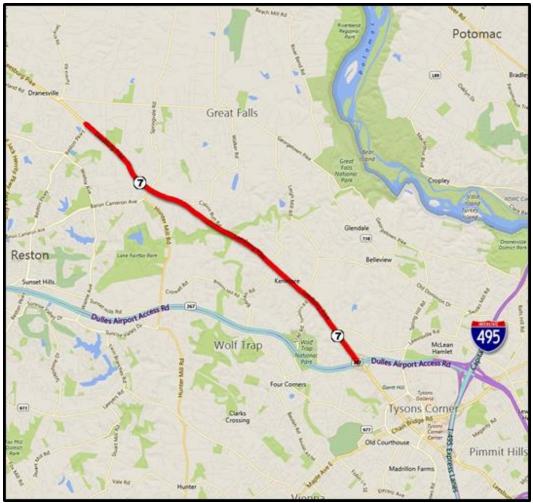
The project is currently under construction with widening on the South side of Route 7 roadway as well as on the North side of Route 7 roadway as all right-of-way (ROW) has been obtained. The ROW process is complete with 236 parcels having been processed. Of the 236 parcels, some 9 parcels remain as not settled with court dates having been assigned.

The current total project cost estimate is \$314,050,354 which is a change of \$178,616. This change in total project cost estimate is resultant of the Central Office Change Order for Steel Adjustment due to the volatility and extreme cost escalation in steel pricing. The adjusted Design-Builder Contract is \$257,735,168.88 resulting from sixty-two (62) Change Orders that have been executed to date, totaling \$4,863,391.68. There are a few anticipated changes orders yet to occur where the paving limits will be slightly modified and or pavement markings extended. These changes are not major and will be less than \$100K. There is no apparent risk at this time of exceeding the project contingency of \$11,640,000.00.

### 1. **Project Description:**

The project is located in Fairfax County, Virginia, and involves widening Route 7 from four to six lanes, intersection, and access management improvements, and adding shared-use paths on both sides. The project includes westbound triple left-turn bays at the existing intersection of Route 7 and Baron Cameron Avenue/Springvale Road as opposed to the as-planned grade-separated interchange that would have carried three through lanes of eastbound Route 7 beneath connecting roadways. This partial grade-separated interchange was removed from the project scope as a cost-saving measure.

The project also includes the replacement of Route 7 over Difficult Run Bridge (at a higher elevation to mitigate flooding), Colvin Run (stream) relocation and associated retaining wall, and a pedestrian underpass beneath Route 7 near the Colvin Run Mill. The project limits are from Reston Avenue to Jarrett Valley Drive, for a total length of approximately 6.9 miles. The Project consists of two (2) UPCs: 99478 and 106917: UPC 99478 represents the eastern portion from Difficult Run to Jarrett Valley Drive; UPC 106917 represents the western portion from Difficult Run to Reston Parkway.



Location Map

In accordance with the National Environmental Policy Act and 23 CFR 771, an Environmental Assessment (EA) was prepared under the Preliminary Engineering (PE) phase, UPC 52328. The Federal Highway Administration (FHWA) approved the Route 7 Corridor Improvements Environmental Assessment (EA) for public review and comment on October 6, 2016. The Design Public Hearing for the project was held on November 15, 2016. Any changes to the Build Alternative resulting from agency coordination as well as public comments received and VDOT responses were incorporated in a revised EA. The FHWA subsequently issued a Finding of No Significant Impact (FONSI) decision on November 15, 2017. The Project is being administered through the design-build project delivery process. A Request for Proposals (RFP) was advertised on November 21, 2017, with the Proposal submittals due by March 28, 2018. None of the offers received from the prospective design-build teams, however, were within the established competitive price range and the award was delayed until revisions to the Build Alternative design were investigated and an additional \$80M in funding was identified to reconcile the Project estimate with the budgeted allocation while ensuring the purpose and need of the Project still remained intact. The proposed partial interchange of Route 7 at Baron Cameron Avenue/Springvale Road was modified to an at-grade intersection with triple left turn lanes

from Route 7 westbound to Baron Cameron Avenue. To facilitate the safe transition from the proposed 3 lanes to the existing 2 lanes of Baron Cameron Avenue southbound, the right lane was extended approximately 450 feet past the Hunter's Gate Way intersection, and a dedicated right turn lane for Hunters' Gate Way was added within the existing right-of-way.

In accordance with the NEPA and §23 CFR 771.129(c), an Environmental Studies document was prepared to determine whether the impacts resulting from changes in the Route 7 Corridor Improvement Project were significant. This evaluation focused on design changes to the Build Alternative for the project since the FONSI decision. A Public Notice of the availability of the Environmental Studies Document was published in three locally available newspapers; however, no comments were received. On April 12, 2019, FHWA concurred with VDOT's recommendation that the project continues to meet the criteria for an EA and the original FONSI decision remains valid. An Environmental Studies document was also prepared in July 2021 for the right land extension and right turn lane addition on Barron Cameron Avenue southbound to confirm the criteria for an EA and that the original FONSI decision remains valid. Public Information meetings were held on May 7, 2019, and May 14, 2019, to share information about the design-build phases of the project, including design progression and schedule, and the transition to construction work, as well as the change from a partial interchange at Baron Cameron Avenue to at-grade intersection improvements.

Additional information on the Route 7 Corridor Improvement Project can be found on the project website (<u>http://www.virginiadot.org/projects/connectroute7.org/</u>). The website provides information regarding project description, purpose, maps, implementation schedule, information presented at the Public Information Meeting and Design Public Hearings (including the Environmental Assessment documentation/technical reports), and contact information for the project team. Additionally, planned lane closures, typical sections, and links to the coordinated Washington Gas work in the corridor are reflected on the website, which is updated weekly or as applicable.

In order to identify potential impacts on Waters of the U.S. (WOUS) that could be associated with the stream relocation alternatives being evaluated, an in-office review of available resource information was conducted to evaluate the potential for regulated features to occur within the study area. Data reviewed included U.S. Geological Survey (USGS) topographic mapping, National Wetland Inventory (NWI) mapping, U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soils mapping and data, and aerial imagery (USGS, 2017; USFWS, 2017b; and USDA, 2017). Following the in-office review, field delineation was conducted in July 2015, to identify jurisdictional WOUS that occur within the study area. The delineation was performed in accordance with the 2012 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (*Version 2.0*) and the United States Army Corps of Engineers (USACE) 1987 Wetland Delineation Manual and subsequent applicable regulatory guidance (USACE, 1987 and USACE, 2012). On December 22, 2015, a USACE field visit was conducted to verify the limits of jurisdictional WOUS within the study area. An in-office review of delineation material occurred on March 23, 2017, and a preliminary jurisdictional

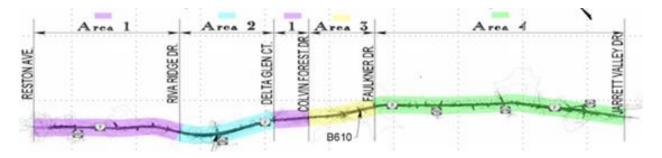
determination (PJD) was issued by the USACE on the same day. All necessary water quality permits have been obtained from regulatory agencies by the Design-Builder.

A Revised Final Noise Analysis was submitted to the Department on January 18, 2022, a revision to the November 19, 2019, version. This Final Noise Analysis was approved by both VDOT and FHWA on January 19, 2022. Notification of impacted and benefitted and those who are not impacted but benefitted were sent the initial ballots on January 31, 2020, with initial balloting closing on March 2, 2020. The second balloting closed on April 13, 2020. Resolution of voting and placement of final noise barriers has occurred for the entire corridor and no further changes are anticipated.

All environmental permits for this project have been issued. This included permits from the US Army Corps of Engineers, the Virginia Department of Environmental Quality, and the Virginia Marine Resources Authority.

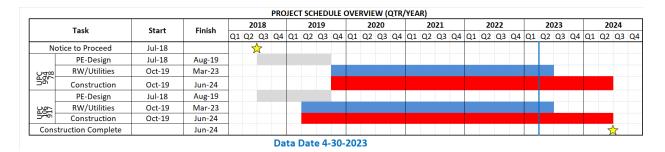
## 2. Schedule

Right-of-Way (ROW) acquisition and utility relocations are on the schedule's critical path (or longest path). There are two hundred and thirty-six (236) parcels from which ROW is needed for the project. There are twenty (20) separate utilities on the project that require relocation of sections or as a whole for the roadway widening and improvements to occur. Right-of-way acquisitions have been prioritized for utility relocations and phases of the project.



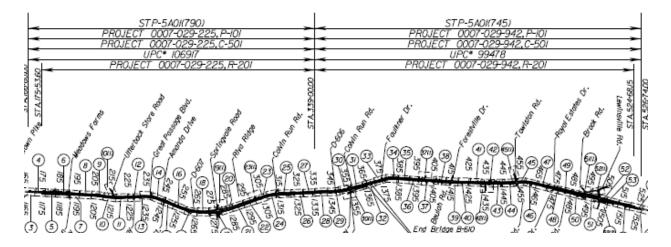
The project has been divided into four (4) distinct areas for work as reflected in the above graphic. This has allowed for the early acquisition of right-of-way from thirty (30) parcels and some early construction activities to occur within the existing right-of-way in Area 1, where no utility easements are needed. This has been facilitated by the approval of the Early Right-of-Way plan and Advance Temporary Traffic Control plan approvals, including NEPA re-evaluation for ROW and PS&E for these plans. The commencement of construction within the existing VDOT ROW in Area 1 is reflected in the schedule below for UPC 106917. At this time all needed Rights-of-Way needed for the 236 parcels have been completed, and the needed acquired, rights have been obtained.

## PROJECT SCHEDULE OVERVIEW



## 3. Project Cost

The total current project cost is \$314,050,354. The project cost by phase and by UPC can be found in the table within this report section, in year-of-expenditure dollars. A graphic depicting the breakout of the UPCs, and project numbers is reflected below. The estimate includes all costs necessary to perform the preliminary engineering (including the cost of NEPA and other environmental documentation), right-of-way, environmental commitments (including, among other things, noise abatement), construction, project management, public outreach, traffic management system (TMS) improvements, congestion management plans, and costs of external third party work, including utility relocations. During the PE Phase, the construction cost estimate was prepared using TRNS\*PORT and includes contingency and construction engineering and inspection. The construction cost estimate was updated upon receipt of the revised Price Proposal from the successful Offeror (the Shirley-Dewberry team). The preliminary engineering phase estimate. The ROW phase was estimated using VDOT's PCES system, with contingency included.



### **PROJECT COST BY PHASE**

#### UPC # 99478 (Difficult Run east)

				Current	
		Initial	Current	Expenditures	
UPC	Phase	Estimate Estimate		(04/30/2023)	Balance to Complete
	PE	\$3,053,637	\$3,053,637	\$3,053,637	-
178	RW	\$20,254,273	\$20,254,273	\$16,135,458	\$4,118,815
99478	CN	\$172,606,202	\$172,784,818	\$137,626,566	\$35,158,252
	Total	\$195,914,112	\$196,092,728	\$156,815,661	\$39,277,067

### UPC # 106917 (Difficult Run west)

				Current	
		Initial	Current	Expenditures	
UPC	Phase	Estimate	Estimate	(04/30/2023)	Balance to Complete
	PE	\$1,238,920	\$1,238,920	\$1,238,920	-
178	RW	\$7,884,127	\$7,884,127	\$5,754,080	\$2,130,047
99478	CN	\$108,834,579	\$108,834,579	\$86,980,738	\$21,853,841
	Total	\$117,957,626	\$117,957,626	\$93,973,738	\$23,983,888

#### Grand Total – UPC# 99478 & 106917

		Initial	Current	Current Expenditures	Balance to Complete		
UPC	Phase	Estimate	Estimate	(04/30/2023)			
8	PE	\$4,292,557	\$4,292,557	\$4,292,557	-		
91. 1	RW	\$28,138,400	\$28,138,400	\$21,889,538	\$6,248,862		
9947 106	CN	\$281,440,781	\$281,619,397	\$224,607,304	\$57,012,093		
6 [	Total	\$313,871,738	\$314,050,354	\$250,789,399	\$63,260,955		

### 4. Project Funds

This project is currently funded by the Regional Surface Transportation Program (RSTP), Northern Virginia Transportation Authority (NVTA), Smart Scale, Commonwealth Transportation Board (CTB), GARVEE, and Fairfax County funds. This project has been developed utilizing the federal process.

Summary of Project Funding by Source
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(Amounts	in	000's)	
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	Funding Source	Previous Thru FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Total	
	FEDERAL	<u> </u>								
	RSTP (MAP 21: Northern Virginia)	73,047	0	0	0	0	0	0	73,047	
	RSTP (STP Regional)	6,629	0	0	0	0	0	0	6,629	
	DGP: STP STWD	4,389	0	0	0	0	0	0	4,389	
	DGP: STP STWD Soft Match	1,098	0	0	0	0	0	0	1,098	
	HPP: STP STWD Soft Match	596	0	0	0	0	0	0	596	
	NoVa HIP-CRSSA - Federal	17,013	0	0	0	0	0	0	17,013	
	NoVA HIP >200k Federal FY21	2,451	0	0	0	0	0	0	2,451	
	DGP: DGP - NHPP	7,637	0	0	0	0	0	0	7,637	
~	DGP: DGP - NHPP Soft Match	1,909	0	0	0	0	0	0	1,909	
& 106917	DGP: DGP - HIP >200k Northern Virginia - Federal	872	0	0	0	0	0	0	872	
8 & 1	DGP (1): DGP - HIP >200k Northern Virginia - Soft Match	218	0	0	0	0	0	0	218	
947	STATE									
UPC # 99478	HPP: State	923	0	0	0	0	0	0	923	
Ö	State Match Non-Formula	117	0	0	0	0	0	0	117	
∃ ⊐	DGP: DGP - State	5,132	0	0	0	0	0	0	5,132	
	CTB Formula: CTB District Grant	183	0	0	0	0	0	0	183	
	MAP21 RSTP: RSTP Match	18,261	0	0	0	0	0	0	18,261	
	NoVA HIP >200k State Match FY21	613	0	0	0	0	0	0	613	
	OTHER									
	DGP: GARVEE - District Grant	71,734	0	0	0	0	0	0	71,734	
	HPP: GARVEE - High Priority	65,123	0	0	0	0	0	0	65,123	
	NVTD Bond Proceeds	290	0	0	0	0	0	0	290	
	LOCAL	1								
	NVTA AR Funds	10,000	0	0	0	0	0	0	10,000	
	Accounts Receivable	25,815	0	0	0	0	0	0	25,815	
	Total	314,050	0	0	0	0	0	0	314,050	

### Federal Fund Sources and Special Funding Techniques

As summarized in the Summary of Project Federal Authorizations Table 1 below, the preliminary engineering (PE) phases for UPC 99478 and 106917 were authorized by the Federal Highway Administration (FHWA) under federal project number STP-5A01(745) and STP-5A01(790).

Project Authorization Summary as of April 30, 2023											
Federal Project	UPC(s)	Phase	Date Authorized by FHWA	Cost	Federal Funds	Advance Construction					
		PE	09/23/16	\$0	\$0	\$0					
	99478	RW	11/21/17	\$8,000,000	\$0	\$8,000,000					
STP- 5A01(745)		CN	11/21/17	\$110,133,064	\$41,820,746	\$58,544,108					
	110377	GARVEE Debt Service	09/23/16	\$107,646,133	\$22,212,956	\$85,433,177					
Subtotal	<u>.</u>			\$225,779,197	\$64,033,702	\$145,335,333					
		PE	02/22/17	\$0	\$0	\$0					
	106917	RW	11/21/17	\$0	\$0	\$0					
STP- 5A01(790)		CN	11/21/17	\$80,776,128	\$48,772,809	\$21,767,857 1					
. ,	110378	GARVEE Debt Service	02/22/17	\$51,896,116	\$15,333,111	\$36,343,179					
Subtotal	<u>.</u>	-		\$132,672,244	\$64,105,920	\$58,111,036					
Total				\$358,451,441	\$128,139,622	\$203,446,369					

## SUMMARY OF PROJECT FEDERAL AUTHORIZATIONS

### 5. Financial Issues

This project is currently funded with RSTP, NVTA, Smart Scale, CTB, GARVEE and Fairfax County funds. VDOT does not anticipate any issues with the funding sources for the project. This project has been developed utilizing the federal process. The debt service for the GARVEE bonds is covered under UPC# 110377 & 110378.

		Previous	FY 24	FY 25	FY 26	FY 27	FY 28	FY		
	Funding Source	Thru FY						29	Total	
		23								
	FEDERAL – 110377									
	MAP21 Debt Service: NHPP	14,933	4,620	5,721	5,725	5,722	5,725	0	42,446	
17	Statewide									
106917	MAP21 Debt Service: NHPP	3,733	1,155	1,431	1,431	1,431	1,431	0	10,612	
	Statewide Soft Match									
80 80	FEDERAL – 110378									
99478	MAP21 Debt Service: NHPP	10,502	2,426	2,725	2,726	2,725	2,726	0	23,830	
66	Statewide									
	MAP21 Debt Service: NHPP	2,626	607	681	681	681	681	0	5,957	
	Statewide Soft Match									
	Total	31,794	8,808	10,558	10,563	10,559	10,563	0	82,845	

### 6. Cash Flow

An annual schedule of cash revenues and expenditures, through project completion, can be found in the table below:

Expenditures		Previous thru FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Total
+ % ~	Preliminary								
C # 78 8 917	Engineering	4,293	0	0	0	0	0	0	4,293
UPC # 99478 - 10691	Right of Way	22,009	3,750	2,377	0	0	0	0	28,136
- 6 1	Construction	244,078	37,501	42	0	0	0	0	281,621
Cumulative	Cumulative Expenditures		311,631	314,0509	0	0	0	0	314,050
Total Annual Allocations		314,050	0	0	0	0	0	0	314,050
Cumulative Allocations		314,050	314,050	314,0500	0	0	0	0	314,050
Cash Flow Per Year		43,670	2,4190	0	0	0	0	0	0

## 7. P3 Assessment

A P3 delivery was not pursued in this project due to the fact that Route 7 is not planned as a toll road, and there are not sufficient tax district revenues to fund the project. Design-Build delivery, however, is being utilized for project delivery in order to accelerate project completion to meet public expectations.

### 8. Risk and Response strategies

A risk assessment workshop has been conducted and associated mitigation strategies have been developed to address the significant risks identified for this project. The most significant risk categories are as follows:

### A. Right-of-Way Acquisition:

<u>Background:</u> ROW on this project entails two hundred and thirty-six (236) parcels of which one (1) is a residential relocation. This magnitude of ROW parcels is significant and was prioritized to allow for utility relocation and construction phasing for the project.

<u>Mitigation Measures</u>: An Early ROW plan approval was initiated on the project for some thirty (30) parcels. The balance of the project, which entails some two hundred and six (206) additional parcels were prioritized for key work elements and utility relocation.

<u>Status:</u> Open. As of this update, the project has acquired rights to all 236 parcels. The number of Certificate of Takes (COT) on this project was fifty-seven (57) parcels with an agreement obtained after the COT for all but nine (9) have been attained. With all Certificates of Take's, there are risks that the actual resolved cost may exceed the budgeted amount plus allowance especially if the matter goes to court. VDOT has assigned these parcels to multiple Attorneys who are actively working to resolve the issues. The project has done a what-if on the nine (9) not yet resolved parcels and unless their court-settled values are double our estimates of the worst case, then the contingency amount that remains for this project will cover this risk.

B. Interfaces with Adjacent Projects:

<u>Background</u>: The Route 7 corridor has several projects being constructed concurrently. Particular interfaces are:

• Arden of McLean – Toll Brothers

Several meetings have occurred with Toll Brothers, the Developer for this project. The development is by right and the site plan has been approved by Fairfax County. The Route 7 Corridor Project has provided consent for the issuance of VDOT tie-in permits on Towlston Road. Several subsequent meetings occurred in 2019. In Fall 2019, Fairfax County requested that the Towlston Road improvements identified in the RFP submission be extended further north to at least Vernon Drive to allow for full 3-lanes south and 1- north in lieu of tapered lanes for this section of roadway allowing for a left turn lane extension beyond the point currently depicted in the Toll Brothers approved site plan. The extension north is approximately 200 feet in length. At this time, this work is anticipated to be completed by mid-summer 2023.

Mitigation Measures: No other actions are needed.

<u>Status:</u> Ongoing effort for the Arden of McLean development.

C. Washington Gas Transmission Line construction:

<u>Background</u>: Washington Gas is upgrading their transmission line along the Route 7 Corridor concurrent with the Route 7 Corridor construction. The upgrade is to replace the existing 16" line with a 24" line for the full 6.9 miles of the project. The replacement gas line is being installed within VDOT's Right-of-Way.

<u>Mitigation Measures</u>: Washington Gas upgrade plans are reviewed and coordinated with the Route 7 Corridor Design-Builder and VDOT, such that the relocation is not in conflict with the Route 7 Corridor design. Additionally, work is coordinated for location and schedule with the Route 7 Corridor Project to avoid working in the same locations at the same time. This coordination is on-going with weekly meetings/conference calls occurring between VDOT, the Design-Builder and Washington Gas throughout the life of the project.

<u>Status:</u> Initially, Washington Gas had a target completion of all their relocations for the fall of 2023. Washington Gas, however, was able to finish their relocation project in December 2022 ahead of time. This was an accomplishment for both the Route 7 widening Project and for Washington Gas as we were able to avoid conflicts and as such their \$200 million dollar transmission upgrade concurrent project which is entirely within the footprint of VDOT's Route 7 Project is done.

D. Market conditions for fuel and asphalt adjustments

<u>Background:</u> The Route 7 Design-Build contract was executed in 2018. The fuel and Asphalt adjustments for the first few years of the project amounted to a credit to the Department of some \$800K. In 2022 the cost of fuel and asphalt were beyond expectations such that there is a monthly cost to the project for these increased costs for both fuel and asphalt items that were identified at the time of submission of the cost proposal. Currently, there are approximately \$1,000,000 in fuel and asphalt adjustments against the project budget.

<u>Mitigation Measures</u>: There really are no mitigation measures to be employed for the increase in fuel and asphalt adjustments.

<u>Status:</u> As the fuel and asphalt adjustments for the first few years of the project resulted in credits to the Department, we had a bank of monies that a good portion of the adjustments of 2022 was assigned against. At this time, the forecast for the remaining work in 2023 if fuel and asphalt remain at these unprecedented high indexes will not impact the total project budget and will be charged against the contingency.

### 9. Annual update cycle

The submission date of the Initial Financial Plan was July 29, 2019. The first annual update was submitted on July 2, 2020, and was based on a "data as of April 30, 2020 ". The second annual

update was submitted with a data date of April 30, 2021. The third annual update had a data date is April 30, 2022. This is the fourth annual update, and the data date is April 30, 2023

### **10.** Summary of Cost Changes since Last Year's Financial Plan

A change to the total project costs was made since the last Financial Plan. This change in total project cost estimate is resultant of the Central Office Change Order for Steel Adjustment due to the volatility and extreme cost escalation in steel pricing as illustrated in the executive summary.

### 11. Cost and Funding Trends since Initial Financial Plan

Through April 30, 2023, construction expenditures have been consistent with planned earnings. The Design-Builder has added additional resources to the project and is targeting early completion by September 27, 2023, for the maximum project incentive which was included in the total project budget and identified in the Fund Distribution Sheet. The project team anticipates that early completion will occur as targeted by the Design-Builder.

### **12.** Summary of Schedule Changes since Last Year's Financial Plan

The Contract completion date for the project has not changed since the last financial plan. The anticipated early completion date of September 27, 2023, has however been identified and appears likely.

### **13.** Schedule Trends since Initial Financial Plan

There have been no impacts on the project schedule since the initial financial plan.