

INTERSTATE 81 – ANNUAL REPORT AND RECOMMENDED UPDATE TO CORRIDOR IMPROVEMENT PROGRAM (CIP)

Ben Mannell, AICP Transportation and Mobility Planning Division

Laura Farmer, Chief Financial Officer

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I-81 Corridor Improvement Program Progress Report

Pursuant to § 33.2-3602, the Report must include:

- **The safety and performance of the Interstate 81 Corridor, including**
 - **Number of incidents**
 - **Average duration of incidents**
 - **Number and average duration of incidents involving lane closures**
 - **Person-hours of delay along the Interstate 81 corridor**
- **An assessment of the effectiveness of the operational strategies and capital projects implemented and funded through the Program**
- **The status of capital projects funded through the Program**
- **The current and projected balances of the Fund**

Corridor Performance

I-81 is experiencing an increase in two performance measures comparing 2021 to 2022.

- Equivalent property damage only (EPDO) crashes
- Person-hours of delay

Table 2: EPDO Crashes

End of Five-Year Period	Northbound	Southbound	Total	Percent Change from Previous Period
2019	49,095	50,012	99,001	-
2021*	52,519	47,880	100,399	+1.4%
2022*	52,852	50,639	103,491	+3.1%

*2016-2021 and 2017-2022 without 2020 data

Table 3: Person-Hours of Delay

End of Two-Year Period	Northbound	Southbound	Total	Percent Change from Previous Period
2019	2,116	1,471	3,587	-
2021*	1,959	1,453	3,412	-4.9%
2022	1,813	1,714	3,527	+3.4%

*2019-2021 without 2020 data

Tables from Annual Report

Effectiveness of Improvements

- **The performance measure data has fluctuated on a segment-by-segment and corridor-wide basis in the years since the plan was developed.**
- **The number of lane-impacting incidents lasting longer than one hour has steadily decreased as well as the number of hours of lane closures.**
- **This decrease in incidents, lane closures, and duration of lane closures may be attributed to the implementation of the Towing and Recovery Incentive Program (TRIP)**

Effectiveness of Improvements

Table 4: Lane-Impacting Incidents

End of Two-Year Period	Northbound	Southbound	Total	Percent Change from Previous Period
2019	1,894	1,691	3,585	-
2021*	1,341	1,184	2,525	-29.6%
2022	820	784	1,604	-36.5%

*2019-2021 without 2020 data

Table 5: Hours of Lane Closures

End of Two-Year Period	Northbound	Southbound	Total	Percent Change from Previous Period
2019	2,329	1,812	4,141	-
2021*	1,945	1,542	3,487	-15.8%
2022	1,574	1,530	3,104	-11.0%

*2019-2021 without 2020 data

Tables from Annual Report

Performance Evaluation in Future

In future years, it will continue to be challenging to evaluate the impact of completed construction projects on the performance measures for the following reasons:

- **Height of construction activity due to occur between 2025 and 2028**
 - **Performance of the corridor may worsen before it gets better**
- **Impacts of active work zones**
- **Performance measure data for 2020 are not reflective of a typical year due to COVID-19; removed from data analysis**
- **Lack of a sufficient time for projects to be implemented and to develop a performance trend**

Status of Projects funded through the Program

With current funding and project estimates, all planned projects currently in the adopted I-81 CIP are anticipated to be completed by 2033

	Project Type	Status	Total Projects	Estimated Completion
Capital	Widening	10	10	2033
	Acceleration/ Deceleration Extension	23	35	2033
	Auxiliary Lane	1	5	2028
	Truck Climbing Lane	5	5	2025
	Shoulder Widening	1	1	2030
	Curve Improvements	8	8	Completed
Operations	Safety Service Patrol Expansion	1	1	Completed
	Towing and Recovery Incentive Program	1	1	Completed
	Camera Installation	42	42	Completed
	Changeable Message Sign Installation	30	30	Completed

Legend: Complete Programmed

Source: Virginia Department of Transportation, 2023

Revenue and Expenditures to Date

Interstate 81 Improvement Fund (in millions) Activity to Date

Sources	Actuals Through FY 2023
Regional Fuels Tax	\$296.5
Interstate Operations and Enhancement Program Allocation (State and Federal)	266.0
Other Sources Prior to FY 2021/Other	24.6
Interest Income	8.6
Total	\$595.7
Bonds/TIFIA Loan	203.1
Total	\$798.8

Activity	Total
Expenditures	
Pay-Go Project Expenditures	\$139.7
Bond Fund Project Expenditures	61.1
Debt Service	7.6
Financing Costs	1.1
Total	\$209.5
Balance Remaining	
Fund Balance	\$443.2
Bond Balance	40.2
Federal IOEP Balance	4.1
TIFIA Balance	101.7
Total Available	\$589.3
Expenditures and Balance Remaining Total	\$798.8

Sources – Revenue Performance and Projections

Sources	Actuals Through FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	Total
Regional Fuels Tax	\$296.5	\$88.1	\$91.5	\$94.4	\$96.5	\$98.7	\$100.9	\$866.6
Interstate Operations and Enhancement Program Allocation	266.0	85.8	112.5	120.0	122.4	125.6	134.0	966.3
Other Sources Prior to FY 2021/Other	24.6							24.6
Prior Year Revenue Adjustment		(1.3)						(1.3)
Interest Income	8.6							8.6
Total	\$591.6	\$172.6	\$204.0	\$214.4	\$218.9	\$224.3	\$234.9	\$1,864.8
Planned Debt for Construction	203.1	237.9		272.9	251.4			965.3
Total	\$798.8	\$410.4	\$204.0	\$487.3	\$470.3	\$224.3	\$234.9	\$2,830.1

Estimate Sources:

Regional Fuels Tax estimate provided by the Virginia Department of Taxation, December 2022

Interstate Operations and Enhancement Program, Commonwealth Transportation Fund Six-Year Financial Plan, June 2023

Uses - Support I-81 Corridor Improvement Program

Uses (in millions)	Through FY 2023*	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	TOTAL
Debt Service	\$7.6	\$5.2	\$5.3	\$14.0	\$9.7	\$33.9	\$23.6	\$99.3
Remaining Fuel Tax Revenue	288.9	80.3	85.7	79.9	85.4	64.8	77.3	762.3
Interstate / IOEP Allocation	297.4	85.8	112.5	120.0	122.4	125.6	134.0	997.7
Administration and Financing Costs	1.8	1.3	0.5	0.5	1.5	-	-	5.6
Total	\$595.7	\$172.6	\$204.0	\$214.4	\$218.9	\$224.3	\$234.9	\$1,864.9
Planned Debt to support Construction	203.1	237.9	-	272.9	251.4	-	-	965.3
Total with Planned Debt	\$798.8	\$410.4	\$204.0	\$487.3	\$470.3	\$224.3	\$234.9	\$2,830.1

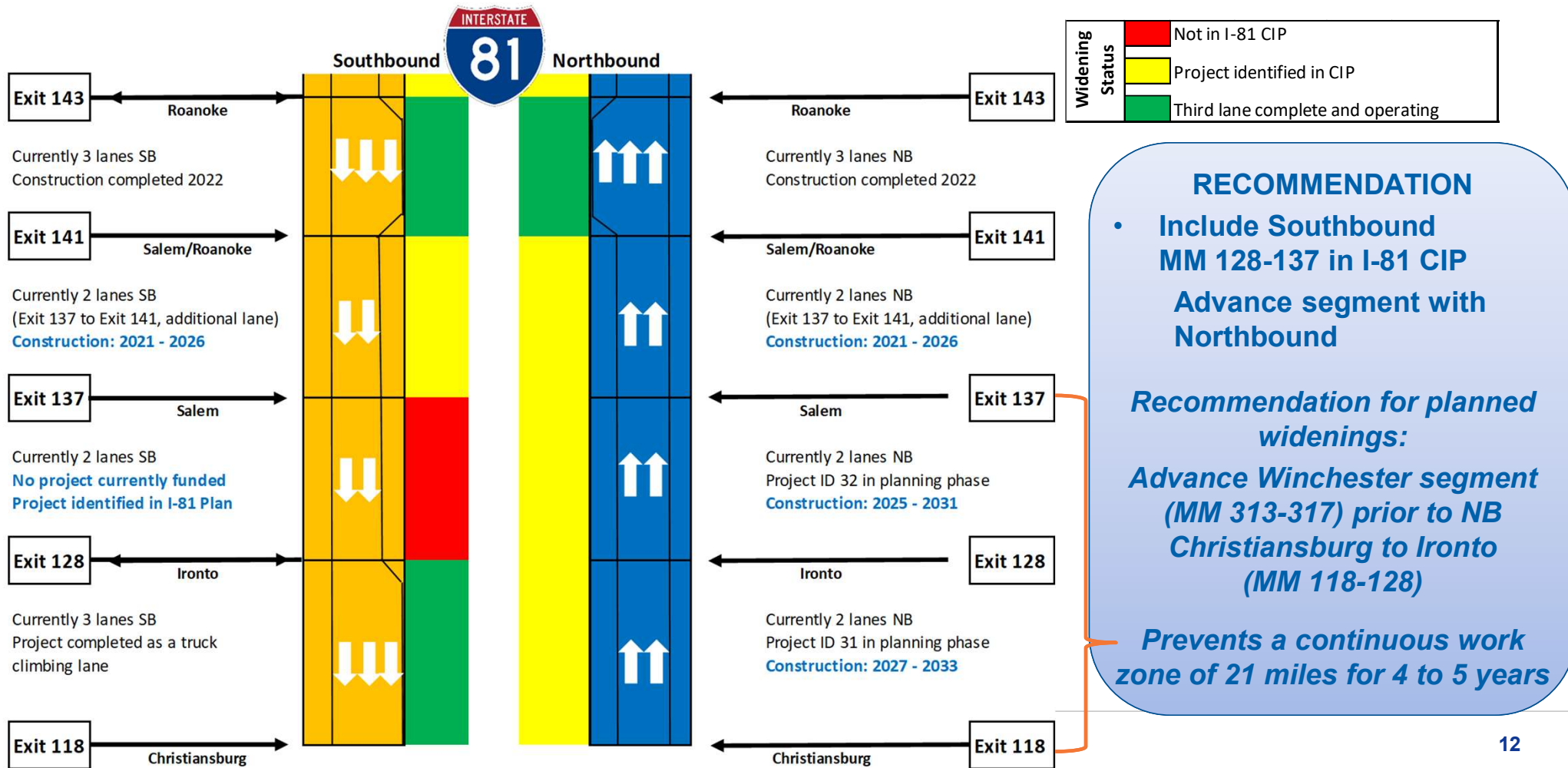
Recommended Update to Interstate 81 Corridor Improvement Program (CIP)

Advisory Committee Request

- **Salem District, Mile Marker 137 to 128 Southbound Widening**
 - **This Southbound section was a recommendation in the I-81 CIP, but was not included in the initial set of improvements recommended due to funding availability**
 - **Northbound widening is in the current plan and is anticipated to be start in 2025**
 - **The Advisory Committee recommends considering including the Southbound section for anticipated savings, estimated at \$75 million, if done concurrently with the Northbound widening.**

Current estimate of the southbound project is \$308 million

Current Status of Widening Projects (Exit 118 to 143)



Impact of Additional Improvements and Next Steps

- **Financial impact of additional project extends the completion of current CIP to 2035 – 2036**
- **Recommendation remains to add the Southbound segment to the I-81 CIP for consideration of funding in the next SYIP update**
- **CTB Action Item**
 - **Adopt Annual Report**
 - **Add Southbound MM 137-128 Widening to the I-81 CIP and advance with Northbound**
 - **Prioritize remaining planned widening segments on corridor**