I-495 & I-270 MANAGED LANES STUDY

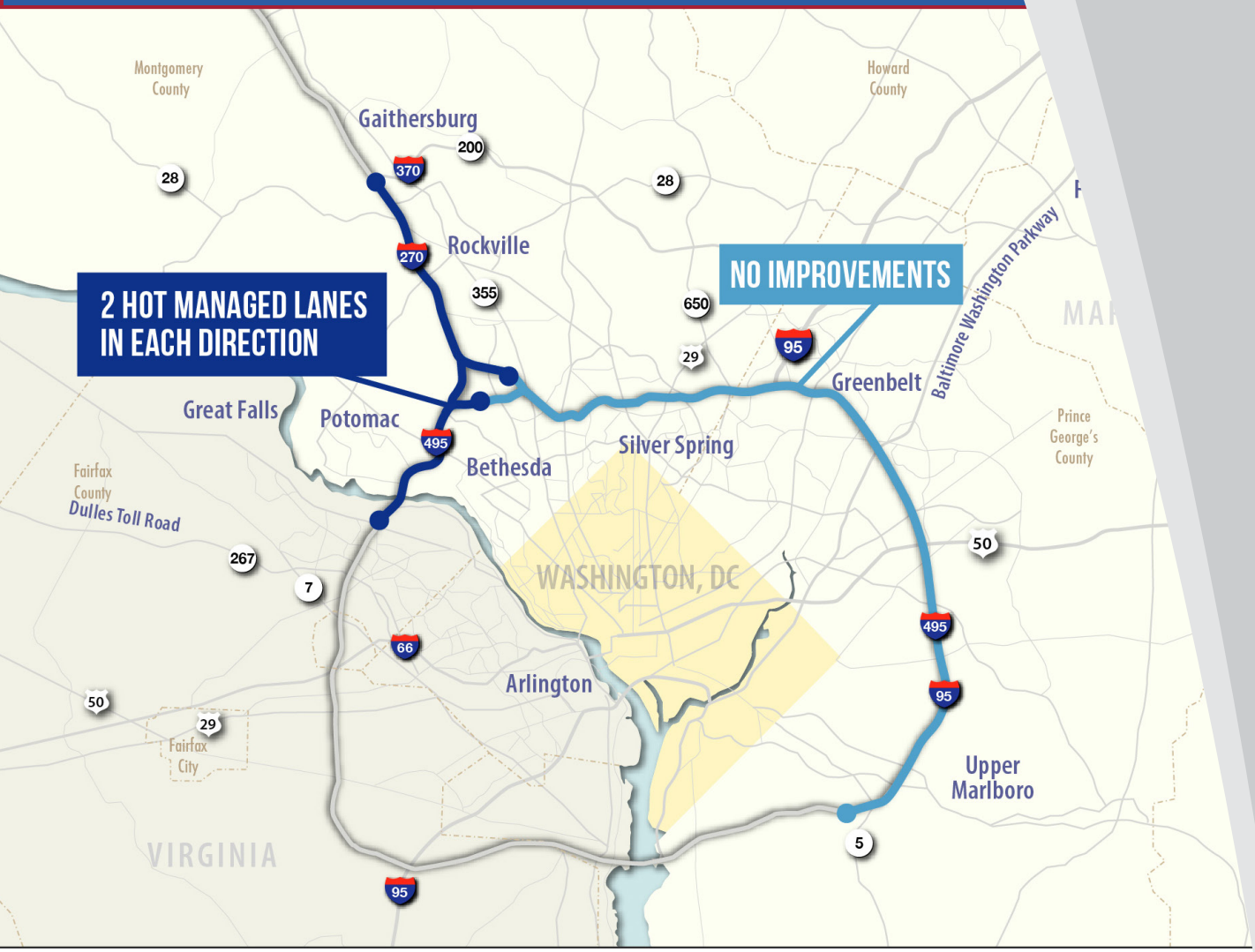
FINAL ENVIRONMENTAL IMPACT STATEMENT AND FINAL SECTION 4(f) EVALUATION

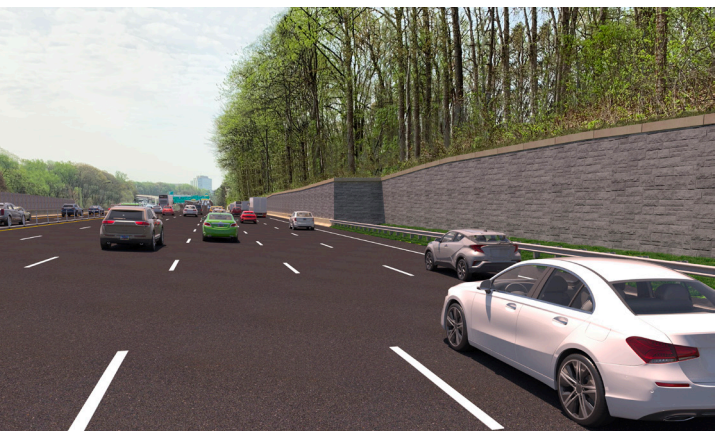
June 2022

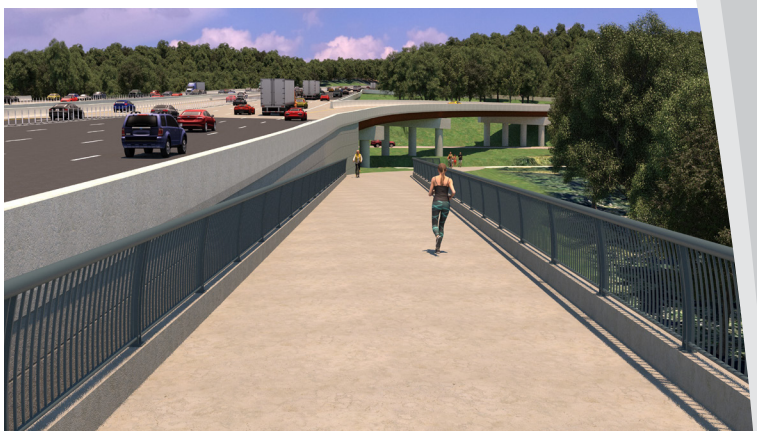
MARYLAND DEPARTMENT OF TRANSPORTATION

STATE HIGHWAY ADMINISTRATION

U.S. Department of Transportation
Federal Highway Administration







I-495 & I-270 MANAGED LANES STUDY

Montgomery and Prince George's Counties, Maryland & Fairfax County, Virginia

FINAL ENVIRONMENTAL IMPACT STATEMENT
and
FINAL SECTION 4(f) EVALUATION

Submitted Pursuant to:
42 U.S.C. §4332(2)(C) and 49 U.S.C. §303

By:
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
and
MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

In Cooperation with:
U.S. Army Corp of Engineers, National Park Service
U.S. Environmental Protection Agency, Maryland Department of Environment
Virginia Department of Transportation, and Maryland-National Capital Park and Planning Commission

06/07/2022
Date of Approval

Tim Smith
Tim Smith, P.E., Administrator
Maryland Department of Transportation
State Highway Administration

6/7/2022
Date of Approval

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This Final Environmental Impact Statement (FEIS) has been prepared in accordance with 23 CFR 771.125 and presents the final analyses completed for the Preferred Alternative, design refinements since the Supplemental Draft Environmental Impact Statement (SDEIS), as well as responses to comments on the Draft Environmental Impact Statement (DEIS) and SDEIS. The Preferred Alternative focuses on constructing two high-occupancy toll (HOT) managed lanes in each direction on I-495 from the George Washington Memorial Parkway in Virginia to west of MD 187 on I-495, including the American Legion Bridge, and on I-270 from I-495 to north of I-370 and on the I-270 east spur from east of MD 187 to I-270. No action or no improvements are proposed east of the I-270 East Spur as part of the Preferred Alternative. The FEIS responds to the over 5,000 public and agency comments received on the DEIS and SDEIS. The FEIS includes the results of the final analyses of environmental impacts based on extensive avoidance and minimization efforts and presents final mitigation and commitments for unavoidable impacts.

OP·LANES™ MARYLAND

I-495 & I-270 Managed Lanes Study

Final Environmental Impact Statement and Final Section 4(f) Evaluation

June 2022

U.S. Department of Transportation

Federal Highway Administration

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION

STATE HIGHWAY ADMINISTRATION

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ABBREVIATIONS AND ACRONYMS

495 NEXT	Virginia Department of Transportation I-495 Express Lanes Northern Extension
AADT	Average Annual Daily Traffic
AASHTO	American Association of State Highway Transportation Officials
AC	Acres
ACHP	Advisory Council on Historic Preservation
ACS	American Community Survey
ADA	Americans with Disabilities Act
ADT	Annual Daily Traffic
ALB	American Legion Bridge
AME	African Methodist Episcopal
AMR	Avoidance, Minimization, and Impacts Report
APE	Area of Potential Effects
ARDS	Alternatives Retained for Detailed Study
ARPA	Archaeological Resource Protection Act
AST	Aboveground Storage Tank
AVE	Area of Visual Effect
BMP	Best Management Practice
BPW	Board of Public Works
BRT	Bus Rapid Transit
CAA	Clean Air Act
CAV	Connected and Automated Vehicle
CCA	Capper-Cramton Act
C-D	Collector-Distributer
CDP	Census Designated Place
CEA	Community Effects Assessment
CEEJH	Community Engagement, Environmental Justice, and Health

CEQ	Council on Environmental Quality
CFPP	Chesapeake Fish Passage Prioritization
CFR	Code of Federal Regulations
CFPP	Chesapeake Fish Passage Prioritization
CH_4	Methane
CLRP	Constrained Long-Range Plan
CMP	Compensatory Mitigation Plan
CNE	Common Noise Environment
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
COMAR	Code of Maryland Regulations
C_{pv}	Channel Protection Volume
CSC	Customer Service Center
CTB	Consolidated Transportation Bonds
CWA	Clean Water Act
dB	Decibel
dBA	A-weighted Decibel
DBE	Disadvantaged Business Enterprises
DBH	Diameter at Breast Height
DEIS	Draft Environmental Impact Statement
DOT	Department of Transportation
DPW&T	Department of Public Works & Transportation
DRPT	Department of Rail and Public
E&S	Erosion and Sediment Control
EA	Environmental Assessment
EDCs	Endocrine Disrupting Chemicals
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
EJ	Environmental Justice
EMS	Emergency Medical Services
EO	Executive Order
ESA	Environmental Site Assessment
ESD	Environmental Site Design
ETC	Electronic Toll Collection
ETL	Express Toll Lane
F&R	Free and Reduced-price
FCA	Forest Conservation Act
FCDPWES	Fairfax County Department of Public Works and Environmental Services
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency

FF	Functional Feet
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIDS	Forest Interior Dwelling Bird Species
FMR	Fair Market Ret
FPPA	Farmland Protection Policy Act
FSD	Forest Stand Delineation
FTA	Federal Transit Administration
FWCA	Fish and Wildlife Coordination Act
FY	Fiscal Year
GHG	Greenhouse Gases
GI	Green Infrastructure
GIA	Green Infrastructure Assessment
GIS	Geographic Information System
GP	General Purpose
GPR	Ground-penetrating Radar
GPS	Global Positioning System
GWMP	George Washington Memorial Parkway
H&H	Hydrologic and Hydraulic
HB	House Bill
HHS	Health and Human Services
HOA	Homeowners' Association
HOT	High-occupancy Toll
HOV	High-occupancy Vehicle
HSM	Highway Safety Manual
HUC	Hydrologic Unit Code
HUD	Housing and Urban Development
IAPA	Interstate Access Point Approval
IART	Impervious Area Requiring Treatment
IAT	Impervious Area Treatment
IAWG	Interagency Working Group
IB	Indiana Bat
IBI	Indices of Biological Integrity
ICC	Intercounty Connector
ICE	Indirect and Cumulative Effects
ICE	Infrastructure Carbon Estimator
ICM	Innovative Congestion Management
IPM	Integrated Pest Management
ISATe	Interchange Safety Analysis Tool
ISI	Institute for Sustainable Infrastructure
IWG	Interagency Working Group

JBA	Joint Base Andrews
JD	Jurisdictional Determination
JPA	Joint Permit Application
KLC	Keyes, Lethbridge, and Condon
LEP	Limited English Proficiency
LF	Linear Feet
LiDAR	Light Detection and Ranging
LOD	Limits of Disturbance
LOI	Lines of Investigation
LOS	Level of Service
LRP/VCP	Land Restoration Program/Voluntary Cleanup Program
LULC	Land Use/Land Cover
LUST	Leaking Underground Storage Tank
MARC	Maryland Area Regional Commuter
MBSS	Maryland Biological Stream Survey
MBTA	Migratory Bird Treaty Act
MCCC	Maryland Commission on Climate Change
MCDEP	Montgomery County Department of Environmental Protection
MCDOT	Montgomery County Department of Transportation
MDE	Maryland Department of the Environment
MDNR	Maryland Department of Natural Resources
MDOT SHA	Maryland Department of Transportation State Highway Administration
MDP	Maryland Department of Planning
MDSE	Maryland State Department of Education
MDTA	Maryland Transportation Authority
MEP	Maximum Extent Practicable
MERLIN	Maryland's Environmental Resources and Land Information Network
MHT	Maryland Historical Trust
MIHP	Maryland Inventory of Historic Properties
MLS	Managed Lanes Study
M-NCPPC	Maryland-National Capital Park and Planning Commission
MOU	Memorandum of Understanding
MPH	Miles per Hour
MPO	Metropolitan Planning Organization
MSATs	Mobile Source Air Toxics
MSDE	Maryland State Department of Education
MSFCMA	Magnuson-Stevens Fishery Conservation and Management Act
MSMF	Maryland Stream Mitigation Framework Calculator
MTA	Maryland Transit Administration
$MTCO_2e$	Metric Tons per Carbon Dioxide Equivalent
MWAQC	Metropolitan Washington Air Quality Committee

MWCOG	Metropolitan Washington Council of Governments
MWG	Mitigation Working Group
N_2O	Nitrous Oxide
NAAQS	National Air Quality Standards
NAC	Noise Abatement Criteria
NB	Northbound
NCA	Neighborhood Conservation Area
NCPC	National Capital Planning Commission
NCR	National Capital Region
NCRTPB	National Capital Region Transportation Planning Board
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NIST	National Institute of Standards and Technology
NLEB	Northern Long-eared Bat
NMFS	National Marine Fisheries Service
NNI	Non-native Invasive
NO_2	Nitrogen Dioxide
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSA	Noise-sensitive Area
NTCHS	National Technical Committee for Hydric Soils
NWI	National Wetlands Inventory
NWPR	Navigable Waters Protection Rule
O_3	Ozone
O&M	Operations and Maintenance
OFD	One Federal Decision
OWC	Organic Wastewater Contaminant
OWJ	Officials with Jurisdiction
P3	Public-Private Partnership
PA	Programmatic Agreement
Pb	Lead
PCB	Polychlorinated Biphenyl
PCT	Piscataway Conoy Tribe of Maryland
PEM	Palustrine Emergent
PFA	Priority Funding Areas
PFO	Palustrine Forested
PM	Particulate Matter

POI	Point of Investigation
POP	Persistent Organic Pollutant
PPCP	Pharmaceuticals and Personal Care Product
PPE	Personal Protective Equipment
PPM	Parts per Million
PSI	Preliminary Site Investigations
PSS	Palustrine Scrub-shrub
PTI	Planning Time Index
Q_p	Quantity Management
RBP	Rapid Bioassessment Protocol
RCRA	Resource Conservation and Recovery Act
RFP	Request for Proposals
RITIS	Regional Integrated Transportation Information System
ROD	Record of Decision
RPA	Resource Protection Areas
RTE	Rare, Threatened, and Endangered
SB	Southbound
SDEIS	Supplemental Draft Environmental Impact Statement
SDWA	Safe Drinking Water Act
SF	Square Feet
SFB	Small-footed Bat
SGCN	Species of Greatest Conservation Need
SO_2	Sulfur Dioxide
SOF	Statement of Findings
SPA	Special Protection Area
SSPRA	Sensitive Species Project Review Areas
SVP	Stream Valley Park
SWAP	State Wildlife Action Plan
SWDA	Safe Drinking Water Act
SWM	Stormwater Management
TAZ	Traffic Analysis Zone
TCLP	Toxicity Characteristic Leaching Procedure
TDM	Transportation Demand Management
TEA	Targeted Ecological Area
TFAD	Travel Forecasting and Analysis Division
TIP	Transportation Improvement Program
TMDL	Total Maximum Daily Loads
TNM	Traffic Noise Model
TPB	Transportation Planning Board
TPY	Tons per Year
TSM	Transportation System Management

TTI	Travel Time Index
U.S.C.	United States Code
USACE	United States Army Corps of Engineers
UMD	University of Maryland
USDA	United States Department of Agriculture
USDOI	United States Department of the Interior
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
USPS	United States Postal Service
UST	Underground Storage Tank
VAC	Virginia Administrative Code
VDCR	Virginia Department of Conservation and Recreation
VDEQ	Virginia Department of Environmental Quality
VDGIF	Virginia Department of Game and Inland Fisheries
VDHR	Virginia Department of Historic Resources
VDOE	Virginia Department of Education
VDOF	Virginia Department of Forestry
VDOT	Virginia Department of Transportation
VDWR	Virginia Department of Wildlife Resources
VMT	Vehicle Miles Traveled
VPDES	Virginia Pollutant Discharge Elimination System
WBFC	Washington Biologists' Field Club
WHS	Wildlife and Heritage Service
WMATA	Washington Metropolitan Area Transit Authority
WQ_v	Water Quality Volume
WQC	Water Quality Certification
WRAP	Wetland Restoration Action Plan
WSSC	Washington Suburban Sanitary Commission
WUS	Waters of the United States