

Response to Request for Proposals

VOLUME I LETTER of SUBMITTAL and ATTACHMENTS

I-77 over Route 606 Bridge Replacement Bland County, Virginia

State Project No.: 0077-010-834, P101, C501, B644

Federal Project No.: NHFP-077-2(341)

Contract ID No.: C00117110DB115

*Submitted by: Brayman Construction Corporation
with E.L. Robinson Engineering*



ATTACHMENT 4.0.1.1
I-77 over Route 606 Bridge Replacement
LETTER OF SUBMITTAL CHECKLIST AND CONTENTS

Offerors shall furnish a copy of this Letter of Submittal Checklist, with the page references added, with the Letter of Submittal.

Letter of Submittal Component	Form (if any)	RFP Part 1 Cross Reference	Page Reference
Letter of Submittal Checklist and Contents	Attachment 4.0.1.1	Section 4.0.1.1	2 - 3
Acknowledgement of RFP, Revisions, and/or Addenda	Attachment 3.4 (Form C-78-RFP)	Sections 3.4; 4.0.1.1	4
Letter of Submittal	NA	Sections 4.1	6 - 7
Letter of Submittal on Offeror's letterhead	NA	Section 4.1.1	6 - 7
Offeror's full legal name and address	NA	Section 4.1.1	6
Authorized representative's original signature	NA	Section 4.1.1	7
Declaration of intent	NA	Section 4.1.2	6
120 day declaration	NA	Section 4.1.3	6
Point of Contact information	NA	Section 4.1.4	6
Principal Officer information	NA	Section 4.1.5	6
Offeror's Corporate Structure	NA	Section 4.1.6	7
Full Legal Name of Lead Contractor, Lead Designer, and QAM	NA	Section 4.1.7	7
Offeror's VDOT prequalification information	NA	Section 4.1.8	7
DBE statement confirming Offeror is committed to achieving the required DBE goal	NA	Section 4.1.9	7
Interim Milestone and Final Completion Date(s)	NA	Section 4.1.10	7

ATTACHMENT 4.0.1.1
I-77 over Route 606 Bridge Replacement
LETTER OF SUBMITTAL CHECKLIST AND CONTENTS

Letter of Submittal Component	Form (if any)	RFP Part 1 Cross Reference	Page Reference
Attachments to the Letter of Submittal	NA	Section 4.2	8 - 92
Affiliated and/ or Subsidiary Companies	Attachment 4.2.1	Section 4.2.1	9
Certification Regarding Debarment Forms	Attachment 4.2.2(a) Attachment 4.2.2(b)	Section 4.2.2	11 - 13
Offeror's VDOT prequalification information	NA	Section 4.2.3	15
Evidence of obtaining bonding	NA	Section 4.2.4	17 - 18
Full size copies of DPOR licenses and SCC registrations	NA	Section 4.2.5	20 - 35
SCC registration information - businesses	Attachment 4.2.5	Section 4.2.5.1	36
DPOR registration information - businesses	Attachment 4.2.5	Section 4.2.5.2	36
Lead Contractor Work History Form	Attachment 4.2.6(a)	Section 4.2.6	38 - 40
Lead Designer Work History Form	Attachment 4.2.6(b)	Section 4.2.6	41 - 43
Conceptual Roadway Plans	NA	Section 4.2.7	54 - 81
Conceptual Bridge Plans	NA	Section 4.2.8	83 - 92
Schedule Narrative		Section 6.2.2	45 - 51

ATTACHMENT 3.4

**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION**

I-77 over Route 606 Bridge Replacement

RFP NO. C00117110DB115
PROJECT NO.: 0077-010-834, P101, C501, B644

ACKNOWLEDGEMENT OF RFP, REVISION AND/OR ADDENDA

Acknowledgement shall be made of receipt of the Request for Proposals (RFP) and/or any and all revisions and/or addenda pertaining to the above designated project which are issued by the Department prior to the Letter of Submittal submission date shown herein. Failure to include this acknowledgement in the Letter of Submittal may result in the rejection of your proposal.

By signing this Attachment 3.4, the Offeror acknowledges receipt of the RFP and/or following revisions and/or addenda to the RFP for the above designated project which were issued under cover letter(s) of the date(s) shown hereon:

1. Cover letter of RFP – November 2, 2022
(Date)
2. Cover letter of Addendum #1 - November 16, 2022
(Date)
3. Cover letter of Addendum #2 - December 9, 2022
(Date)



SIGNATURE

January 18, 2023
DATE

Frank A. Piedimonte, P.E.
PRINTED NAME

President & COO
TITLE

4.1: Letter of Submittal



4.1 Letter of Submittal



January 18, 2023

Daniel McBride, PE
Alternative Project Delivery Division
Virginia Department of Transportation
1401 East Broad Street
Richmond, VA 23219

*Submitted electronically
via BidExpress*

RE: Request for Proposals
I-77 over Route 606 Bridge Replacement
Contract ID Number: C00117110DB115

Dear Mr. McBride:

Brayman Construction Corporation (Brayman) together with Lead Design Firm E.L. Robinson Engineering (ELR) have formed a Design-Build Team (DBT) that fully understands the goals and visions of the Virginia Department of Transportation (VDOT) for the I-77 over Route 606 Bridge Replacement Project (Project) and is committed to managing the challenges and impacts associated with design and construction of this essential transportation link. In response to VDOT's Request for Proposals related to the Project, we are pleased to submit the requisite Letter of Submittal and Price Proposal.

4.1.1 Full Legal Name and Address of the Offeror:

Brayman Construction Corporation | 1000 John Roebling Way; Saxonburg, PA 16056

4.1.2 Declaration of Offeror's Intent:

Brayman intends, if selected, to enter into a contract with VDOT for the Project in accordance with the terms of this RFP.

4.1.3 120-day Declaration of Proposal Validity:

Brayman's offer represented by the Proposal will remain in full force and effect for one hundred twenty (120) days after the Price Proposal is submitted to VDOT ("Letter of Submittal & Price Proposal Due Date").

4.1.4 Point of Contact for the Offeror:

Mr. Kevin L. Cook, Construction Manager
Address: 925 Fairview Road
Wytheville, VA 24382
Tel: (276) 335-0400, ext. 53116
Fax: (724) 352-1771
Email: k_cook@brayman.com

4.1.5 Principal Officer of the Offeror:

Mr. Frank A. Piedimonte, President and COO
Address: 1000 John Roebling Way
Saxonburg, PA 16056
Tel: (724) 443-1533
Fax: (724) 352-1771
Email: f_piedimonte@brayman.com

4.1 Letter of Submittal



4.1.6 Structure of the Offeror:

Brayman is structured as a corporation. Brayman will undertake full financial responsibility for the Project and accepts the risks and liabilities for the performance of the work.

4.1.7 Full Legal Name of Lead Contractor / Lead Designer / Quality Assurance Firm:

Brayman Construction Corporation, Lead Contractor / E.L. Robinson Engineering Co., Lead Designer / Summit Design and Engineering Services, PLLC, Quality Assurance Firm

4.1.8 VDOT Prequalification:

Brayman’s Vendor ID is B873 and our status is “active.” Brayman is in good standing and prequalified to bid on the Project. Please refer to Appendix 4.2.3 for supporting documentation.

4.1.9 DBE Participation Goal:

Brayman is fully committed to achieving the six percent (6%) DBE participation goal for the entire value of the contract.

4.1.10 Interim and Final Completion Date(s):

Brayman proposes 09/07/2025 as the Early Completion date and 11/06/2025 as the Final Completion Date for the Project.

Our DBT offers VDOT uniquely qualified, reputable firms that combine national expertise with proven local success. Please do not hesitate to contact us by phone at (724) 443-1533 with any questions. We look forward to working with VDOT to make the vision a reality.

Respectfully submitted,
BRAYMAN CONSTRUCTION CORPORATION

A handwritten signature in blue ink, appearing to read "Frank A. Piedimonte".

Frank A. Piedimonte, PE
President & COO

4.2.1: Affiliated/Subsidiary Companies List



4.2.2: Certifications Regarding Debarment

ATTACHMENT 4.2.2(a)

CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project No.: 0077-010-834, P101, C501, B644

1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency.

b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; and have not been convicted of any violations of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification, or destruction of records, making false statements, or receiving stolen property;

c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1) b) of this certification; and

d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.



Signature

01/18/2023

Date

President & COO

Title

Brayman Construction Corporation

Name of Firm

ATTACHMENT 4.2.2(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0077-010-834, P101, C501, B644

- 1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.



1/11/2023

Vice President

Signature

Date

Title

E. L. Robinson Engineering Co.

Name of Firm

ATTACHMENT 4.2.2(b)

**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0077-010-834, P101, C501, B644

- 1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.



Signature

1/10/23

Date

Director of Operations

Title

Summit Design and Engineering Services, PLLC

Name of Firm

4.2.3: VDOT Prequalification





Department's List of Prequalified Vendors
Includes All Qualified Levels As Of 1/4/2023

- B -

Vendor ID: B2641
Vendor Name: BRASFIELD & GORRIE, L.L.C.
Prequal Level: Prequalified (Probationary)
Prequal Exp: 02/28/2023

-- PREQ Address --

3021 7TH AVE. SOUTH
BIRMINGHAM, AL 35233
Phone: (205)328-4000
Fax: (205)251-1304

Work Classes (Listed But Not Limited To)

- 002 - GRADING
- 003 - MAJOR STRUCTURES
- 007 - MINOR STRUCTURES
- 019 - ERECT FABRICATED STRUCTURAL MATERIAL
- 101 - EXCAVATING

Bus. Contact: MYERS, BRYAN DUNCAN
Email: CONTRACTORLICENSING@BRASFIELDGORRIE.COM

-- DBE Information --

DBE Type: N/A
DBE Contact: N/A

Vendor ID: B873
Vendor Name: BRAYMAN CONSTRUCTION CORPORATION
Prequal Level: Prequalified
Prequal Exp: 02/28/2023

-- PREQ Address --

1000 JOHN ROEBLING WAY
SAXONBURG, PA 16056-0000
Phone: (724)443-1533
Fax: (724)352-1771

Work Classes (Listed But Not Limited To)

- 003 - MAJOR STRUCTURES
- 007 - MINOR STRUCTURES
- 030 - PILE DRIVING AND CAISSONS
- 055 - BRIDGE REPAIRS
- 101 - EXCAVATING

Bus. Contact: MANNARINO, RICHARD ANTHONY
Email: ESTIMATING@BRAYMAN.COM

-- DBE Information --

DBE Type: N/A
DBE Contact: N/A

4.2.4: Surety Letter





January 18, 2023

Commonwealth of Virginia
Department of Transportation
1401 East Broad Street
Richmond, VA 23219

RE: *Brayman Construction Corporation and affiliates*
Contract ID # C00117110DB115
Project Estimate: \$11,000,000.

To Whom It May Concern:

As Surety for Brayman Construction Corporation and affiliates, Liberty Mutual Insurance Company with an A.M. Best Financial Strength **A** (Excellent) and Financial Size Category **XV** is capable of obtaining 100% Performance Bond and 100% Labor and Materials Payment Bond in the amount of the anticipated cost of construction, and said bonds will cover the Project and any warranty periods as provided for the in the Contract Documents on behalf of Brayman Construction Corporation, in the event that such firm be the successful bidder and enter into a contract for this Project.

Please note that the decision to issue performance and payment bonds is a matter between Brayman Construction Corporation and Liberty Mutual Insurance Company, and will be subject to our standard underwriting at the time of the final bond request, which will include but not limited to the acceptability of the contract documents, bond forms and project financing. We assume no liability to third parties or to you if for any reason we do not execute said bonds.

We feel Brayman Construction Corporation is deserving of your full confidence and it is without reservation that we recommend this fine contractor. There are very few contractors of Brayman's caliber in the country. Should you need any additional confirmation of their bond program, please give me a call.

This letter is not an assumption of liability, nor is it a bid bond or a performance bond. It is issued only as a bonding reference, requested from us by our client.

Sincerely,
Liberty Mutual Insurance Company

Josephine M. Streyle
Attorney-in-fact



This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

Certificate No: 8208224-387004

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Alexandra Machnik, Barbara A. Leeper, Brian F. Jeffe, Jay Black, Josephine M. Streyle, Matthew M. Eperesi, Pamela M. Anderson, Patti K. Lindsey, Wendy A. Bright, William M. Chapman

all of the city of Pittsburgh state of PA each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 28th day of June, 2022.



Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

By: David M. Carey

David M. Carey, Assistant Secretary

State of PENNSYLVANIA
County of MONTGOMERY ss

On this 28th day of June, 2022 before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written.



Commonwealth of Pennsylvania - Notary Seal
Teresa Pastella, Notary Public
Montgomery County
My commission expires March 28, 2025
Commission number 1126044
Member, Pennsylvania Association of Notaries

By: Teresa Pastella
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV - OFFICERS: Section 12. Power of Attorney.

Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII - Execution of Contracts: Section 5. Surety Bonds and Undertakings.

Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation - The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization - By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 18th day of January, 2023.



By: Renee C. Llewellyn

Renee C. Llewellyn, Assistant Secretary

NOT VALID FOR FINANCING, RATE, FEE, RENEWAL, RENEWAL OF CREDIT, CURRENCY RATE, INTEREST RATE OR RESIDUAL VALUE GUARANTEES.

For bond and/or Power of Attorney (POA) verification inquiries, please call 810-837-8240 or email HOSI@libertymutual.com

4.2.5: License & Registration Information - Businesses



Entity Information

Entity Information

Entity Name: Brayman Construction Corporation

Entity ID: F1613357

Entity Type: Stock Corporation

Entity Status: **Active**

Series LLC: N/A

Reason for Status: Active and In Good Standing

Formation Date: N/A

Status Date: 03/03/2020

VA Qualification Date: 01/06/2005

Period of Duration: Perpetual

Industry Code: 0 - General

Annual Report Due Date: N/A

Jurisdiction: PA

Charter Fee: \$50.00

Registration Fee Due Date: Not Required

Registered Agent Information

RA Type: Entity

Locality: CHESTERFIELD COUNTY

RA Qualification: BUSINESS ENTITY THAT IS AUTHORIZED TO
TRANSACTION BUSINESS IN VIRGINIA

Name: COGENCY GLOBAL INC.

Registered Office Address: 250 Browns Hill Ct, Midlothian, VA, 23114 - 9510, USA

Principal Office Address

Address: 1000 JOHN ROEBLING WAY, SAXONBURG, PA, 16056 -
0000, USA

[Privacy Policy \(https://www.scc.virginia.gov/privacy.aspx\)](https://www.scc.virginia.gov/privacy.aspx) | [Contact Us](#)

https://www.scc.virginia.gov/clk/clk_contact.aspx

Principal Information
 (<https://www.facebook.com/VirginiaStateCorporationCommission>) (<https://twitter.com/VASateCorpComm>)

Title	Director	Name	Address	Last Updated
	Yes	KIM KUNKLE	1000 JOHN ROEBLING WAY, SAXONBURG, PA, 16056 - 0000, USA	01/28/2019
Vice President	No	RICHARD A MANNARINO	1000 JOHN ROEBLING WAY, SAXONBURG, PA, 16056 - 0000, USA	01/28/2019
CEO	No	STEPHEN M MUCK	1000 JOHN ROEBLING WAY, SAXONBURG, PA, 16056 - 0000, USA	01/28/2019
CFO	No	RYAN PARKER	1000 JOHN ROEBLING WAY, SAXONBURG, PA, 16056 - 0000, USA	01/28/2019

Current Shares

Total Shares: 3500

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Commonwealth of Virginia



State Corporation Commission

CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That BRAYMAN CONSTRUCTION CORPORATION, a corporation incorporated under the laws of Pennsylvania, is authorized to transact business in the Commonwealth of Virginia

That the corporation obtained a certificate of authority to transact business in Virginia from the Commission on January 6, 2005; and

That the corporation is in good standing in the Commonwealth of Virginia as of the date set forth below.

Nothing more is hereby certified.



Signed and Sealed at Richmond on this Date:

December 9, 2022

A handwritten signature in black ink, appearing to read "Bernard J. Logan".

Bernard J. Logan, Clerk of the Commission

DPOR License Lookup License Number 2705090046

License Details

Name	BRAYMAN CONSTRUCTION CORPORATION
License Number	2705090046
License Description	Contractor
Firm Type	Corporation
Rank ¹	Class A
Address	1000 JOHN ROEBLING WAY, SAXONBURG, PA 16056
Specialties²	Highway / Heavy (H/H)
Initial Certification Date	2005-01-13
Expiration Date	2025-01-31

- 1 Refer to the Statutory Definitions (<http://law.lis.virginia.gov/vacode/title54.1/chapter11/section54.1-1100/>) for descriptions of the rank or class of license (A, B, or C) that determines the monetary limits on contracts/projects.
- 2 Refer to the Classification Definitions (<http://lis.virginia.gov/cgi-bin/legp604.exe?000+reg+18VAC50-22-20>) and Specialty Definitions (<http://lis.virginia.gov/cgi-bin/legp604.exe?000+reg+18VAC50-22-30>) for detailed definitions of these classifications and specialties.

The data located on this website are not the public records of the Department of Professional and Occupational Regulation (DPOR). All public records are physically located at DPOR's Public Records Section: 9960 Mayland Drive, Suite 400, Richmond, VA 23233. While DPOR works to ensure the accuracy of the data provided online, the data available on these pages are updated routinely but may not be up to date at all times (due to document processing delays, technical maintenance, etc.).

DPOR assumes no liability for any errors, omissions, or inaccuracies in the information provided or for any reliance on data provided online. While DPOR has attempted to ensure that the data contained herein are accurate and reflect the status of its regulants, DPOR makes no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability of this data. If discrepancies or errors are discovered, please inform DPOR so that appropriate action may be taken.

DPOR License Lookup build 1,452 (built 2021-09-14 01:36:33).

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation

9960 Mayland Drive, Suite 400, Richmond, VA 23233

Telephone: (804) 367-8500

EXPIRES ON

01-31-2025

NUMBER

2705090046

BOARD FOR CONTRACTORS
CLASS A CONTRACTOR
CLASSIFICATIONS H/H



BRAYMAN CONSTRUCTION CORPORATION
1000 JOHN ROEBLING WAY
SAXONBURG, PA 16056



Demebrice J. Malle
Demebrice J. Malle, Director

Status can be verified at <http://www.dpor.virginia.gov>

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)



COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation

CLASS A BOARD FOR CONTRACTORS
CONTRACTOR

CLASSIFICATIONS H/H

NUMBER: 2705090046 EXPIRES: 01-31-2025

BRAYMAN CONSTRUCTION CORPORATION
1000 JOHN ROEBLING WAY
SAXONBURG, PA 16056



(FOLD)

Status can be verified at <http://www.dpor.virginia.gov>

DPOR-PC (02/2017)

(DETACH HERE)

Entity Information

Entity Information	
Entity Name: E. L. Robinson Engineering Co.	Entity ID: F2104455
Entity Type: Stock Corporation	Entity Status: Active
Series LLC: N/A	Reason for Status: Active and In Good Standing
Formation Date: 08/01/1978	Status Date: 03/25/2021
VA Qualification Date: 09/28/2018	Period of Duration: Perpetual
Industry Code: 0 - General	Annual Report Due Date: N/A
Jurisdiction: WV	Charter Fee: \$50.00
Registration Fee Due Date: Not Required	

Registered Agent Information	
RA Type: Entity	Locality: VIRGINIA BEACH CITY
RA Qualification: BUSINESS ENTITY THAT IS AUTHORIZED TO TRANSACT BUSINESS IN VIRGINIA	
Name: Registered Agents Inc.	Registered Office Address: 4445 Corporation Ln Ste 264, Virginia Beach, VA, 23462 - 3262, USA

Principal Office Address	
Address: 5088 Washington St W, Charleston, WV, 25313, USA	

Principal Information				
Title	Director	Name	Address	Last Updated
President	Yes	Ed Robinson	5088 Washington St W, Charleston, WV, 25313 - 1536, USA	09/22/2022
Secretary, Treasurer	No	Faheem Ahmad	5088 Washington St W, Charleston, WV, 25313 - 1536, USA	09/22/2022
Authorized Person	No	Mark Allison	5088 Washington St W, Charleston, WV, 25313 - 1536, USA	08/10/2021
Vice President	No	Lee R Lewis	5088 Washington St W, Charleston, WV, 25313, USA	09/22/2022

Current Shares	
Total Shares: 60000	

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Commonwealth of Virginia



State Corporation Commission

CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That E. L. Robinson Engineering Co., a corporation incorporated under the laws of WEST VIRGINIA, is authorized to transact business in the Commonwealth of Virginia;

That the corporation obtained a certificate of authority to transact business in Virginia from the Commission on September 28, 2018; and

That the corporation is in good standing in the Commonwealth of Virginia as of the date set forth below.

Nothing more is hereby certified.



Signed and Sealed at Richmond on this Date:

March 30, 2021

A handwritten signature in cursive script, reading "Bernard J. Logan".

Bernard J. Logan, Clerk of the Commission

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation

9960 Mayland Drive, Suite 400, Richmond, VA 23233

Telephone: (804) 367-8500

EXPIRES ON

12-31-2023

NUMBER

0407004252

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS
AND LANDSCAPE ARCHITECTS
BUSINESS ENTITY REGISTRATION



PROFESSIONS: ENG



E L ROBINSON ENGINEERING CO
5088 WASHINGTON ST WEST
CHARLESTON, WV 25313

Mary Brez-Vaughan
Mary Brez-Vaughan, Director

Status can be verified at <http://www.dpor.virginia.gov>

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation

BOARD FOR APELSCIDLA
BUSINESS ENTITY REGISTRATION
NUMBER: 0407004252 EXPIRES: 12-31-2023
PROFESSIONS: ENG
E L ROBINSON ENGINEERING CO
5088 WASHINGTON ST WEST
CHARLESTON, WV 25313



(FOLD)

Status can be verified at <http://www.dpor.virginia.gov>

DPOR-LIC (02/2017)

(DETACH HERE)

DPOR-PC (02/2017)

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233

Telephone: (804) 367-8500

EXPIRES ON

02-29-2024

NUMBER

0411001550

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS
AND LANDSCAPE ARCHITECTS
BUSINESS ENTITY BRANCH OFFICE REGISTRATION

PROFESSIONS: ENG



E L ROBINSON ENGINEERING CO
4140 PLEASANT VALLEY RD STE 101
CHANTILLY, VA 20151



Dimitrios J. Melis
Dimitrios J. Melis, Director

Status can be verified at <http://www.dpor.virginia.gov>

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation

BOARD FOR APELSCIDLA
BUSINESS ENTITY BRANCH OFFICE REGISTRATION
NUMBER: 0411001550 EXPIRES: 02-29-2024
PROFESSIONS: ENG
E L ROBINSON ENGINEERING CO
4140 PLEASANT VALLEY RD STE 101
CHANTILLY, VA 20151



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DPOR-LIC (02/2017)

(DETACH HERE)

DPOR-PC (02/2017)

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON
02-29-2024

NUMBER
0411001574

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS
AND LANDSCAPE ARCHITECTS
BUSINESS ENTITY BRANCH OFFICE REGISTRATION



E L ROBINSON ENGINEERING CO
93 VIRGINIA ST
BECKLEY, WV 25801



Signature
Dominica J. Miller, Director

Status can be verified at <http://www.dpor.virginia.gov>

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BOARD FOR APELSCIDLA
BUSINESS ENTITY BRANCH OFFICE REGISTRATION
NUMBER: 0411001574 EXPIRES: 02-29-2024
PROFESSIONS: ENG
E L ROBINSON ENGINEERING CO
93 VIRGINIA ST
BECKLEY, WV 25801



(FOLD)

DPOR-LIC (02/2017)
(DETACH HERE)

DPOR-PC (02/2017)

Status can be verified at <http://www.dpor.virginia.gov>

PATENTS 518786 0340158

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233

Telephone: (804) 367-8500

EXPIRES ON

02-29-2024

NUMBER

0411001504

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS
AND LANDSCAPE ARCHITECTS
BUSINESS ENTITY BRANCH OFFICE REGISTRATION



E L ROBINSON ENGINEERING CO
3362 SIX FORKS RD
RALEIGH, NC 27609



Demetrius J. Mills
Demetrius J. Mills, Director

Status can be verified at <http://www.dpor.virginia.gov>

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON

02-29-2024

NUMBER

0411001534

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS
AND LANDSCAPE ARCHITECTS
BUSINESS ENTITY BRANCH OFFICE REGISTRATION



E L ROBINSON ENGINEERING CO
1301 GERVAIS ST STE 450
COLUMBIA, SC 29201

Denise J. Miller
Denise J. Miller, Director

Status can be verified at <http://www.dpor.virginia.gov>

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

DPOR License Lookup License Number 0411001505

License Details

Name	E L ROBINSON ENGINEERING CO
License Number	0411001505
License Description	Business Entity Branch Office Registration
Business Type	Corporation
Rank	Business Entity Branch Office
Address	950 GOODALE BLVD SUITE 180, GRANDVIEW HEIGHTS, OH 43212
Initial Certification Date	2019-06-13
Expiration Date	2024-02-29

Related Licenses ¹

License Number	License Holder		License Type	Relation Type	License Expiry
	Name				
0402057474	NUSAIRAT, JAMAL		Professional Engineer License	Engineering	2023-05-31

Showing 1 to 1 of 1 entries

- 1 The data located on this website are not the public records of the Department of Professional and Occupational Regulation (DPOR). All public records are physically located at DPOR's Public Records Section: 9960 Mayland Drive, Suite 400, Richmond, VA 23233. While DPOR works to ensure the accuracy of the data provided online, the data available on these pages are updated routinely but may not be up to date at all times (due to document processing delays, technical maintenance, etc.).

DPOR assumes no liability for any errors, omissions, or inaccuracies in the information provided or for any reliance on data provided online. While DPOR has attempted to ensure that the data contained herein are accurate and reflect the status of its regulants, DPOR makes no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability of this data. If discrepancies or errors are discovered, please inform the Broker and DPOR so that appropriate action may be taken.

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DPOR License Lookup build 1,452 (built 2021-09-14 01:36:33).

Entity Information

Entity Information

Entity Name: Summit Design and Engineering Services, PLLC
Entity ID: T0306474
Entity Type: Limited Liability Company
Entity Status: **Active**
Series LLC: No
Reason for Status: Active
Formation Date: N/A
Status Date: 10/06/2008
VA Qualification Date: 05/08/2006
Period of Duration: Perpetual
Industry Code: 70 - Other DULY LICENSED PROFESSIONAL ENTITY not listed below as SPECIFIED in Section 13.1-543 of the Code of Virginia
Annual Report Due Date: N/A
Jurisdiction: NC
Charter Fee: N/A
Registration Fee Due Date: Not Required

Registered Agent Information

RA Type: Individual
Locality: RICHMOND CITY
RA Qualification: Member of the Virginia State Bar
Name: BRIAN R PITNEY
Registered Office Address: 1111 E. MAIN STREET, SUITE 2400, PO BOX 1998, RICHMOND, VA, 23218 - 1998, USA

Principal Office Address

Address: 320 Executive Dr, Hillsborough, NC, 27278 - 0500, USA

[Filing History](#)[RA History](#)[Name History](#)[Previous Registrations](#)[Protected Series](#)[Garnishment Designees](#)[Image Request](#)[Back](#)[Return to Search](#)[Return to Results](#)[Back to Login](#)

Commonwealth of Virginia



State Corporation Commission

CERTIFICATE OF FACT

I Certify the Following from the Records of the Commission:

That Summit Design and Engineering Services, PLLC, a Limited Liability Company organized under the law of North Carolina, obtained a certificate of registration to transact business in Virginia from the Commission on May 8, 2006; and

That the Limited Liability Company is registered to transact business in the Commonwealth of Virginia as of the date set forth below.

That the limited liability company is current in the payment of all registration fees assessed against it by the Commission pursuant to the Virginia Limited Liability Company Act as of the date set forth below.

Nothing more is hereby certified.



Signed and Sealed at Richmond on this Date:

August 12, 2022

A handwritten signature in black ink, appearing to read "Bernard J. Logan".

Bernard J. Logan, Clerk of the Commission

COMMONWEALTH of VIRGINIA
 Department of Professional and Occupational Regulation
 9960 Mayland Drive, Suite 400, Richmond, VA 23233
 Telephone: (804) 367-8500

EXPIRES ON

02-29-2024

NUMBER

0414000013

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS
 AND LANDSCAPE ARCHITECTS
 PROFESSIONAL LIMITED LIABILITY COMPANY BRANCH OFFICE REGISTRATION

PROFESSIONS: ENG



SUMMIT DESIGN AND ENGINEERING SERVICES, PLLC
 606 BROAD ST
 STE C
 SOUTH BOSTON, VA 24592




Demetrios J. Mella, Director

Status can be verified at <http://www.dpor.virginia.gov>

COMMONWEALTH of VIRGINIA
 Department of Professional and Occupational Regulation
 9960 Mayland Drive, Suite 400, Richmond, VA 23233
 Telephone: (804) 367-8500

EXPIRES ON

02-29-2024

NUMBER

0414000034

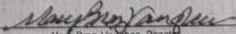
BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS
 AND LANDSCAPE ARCHITECTS
 PROFESSIONAL LIMITED LIABILITY COMPANY BRANCH OFFICE REGISTRATION

PROFESSIONS: LS, ENG, ARC



SUMMIT DESIGN AND ENGINEERING SERVICES PLLC
 2201 W BROAD ST
 STE 204
 RICHMOND, VA 23220




Mary Broc-Vaughan, Director

Status can be verified at <http://www.dpor.virginia.gov>

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS) DPOR-LIC (02/2017)

ATTACHMENT 4.2.5

State Project No.: 0077-010-834, P101, C501, B644

SCC and DPOR Information

Offerors shall complete the table and include the required state registration and licensure information. By completing this table, Offerors certify that their team complies with the requirements set forth in Section 4.2.5 and that all businesses listed are active and in good standing.

SCC & DPOR INFORMATION FOR BUSINESSES (RFP Sections 4.2.5.1 and 4.2.5.2)							
Business Name	SCC Information (4.2.5.1)			DPOR Information (4.2.5.2)			
	SCC Number	SCC Type of Corporation	SCC Status	DPOR Registered Address	DPOR Registration Type	DPOR Registration Number	DPOR Expiration Date
Brayman Construction Corporation	F1613357	Stock Corporation	Active	1000 John Roebling Way; Saxonburg, PA 16056	Contractor	2705090046	01/31/2025
E.L. Robinson Engineering	F2104455	Stock Corporation	Active	5088 Washington St. W Charleston, WV 25313	Business Entity	0407004252	12-31-2023
E.L. Robinson Engineering			Active	4140 Pleasant Valley Road Suite 101 Chantilly, VA 20150	Branch Office	0411001550	02-29-2024
E.L. Robinson Engineering			Active	93 Virginia St Beckley, WV 25801	Branch Office	0411001574	02-29-2024
E.L. Robinson Engineering			Active	3363 Six Forks Rd Raleigh, NC 27609	Branch Office	0411001504	02-29-2024
E.L. Robinson Engineering			Active	1301 Gervais St; Suite 450 Columbia, SC 29201	Branch Office	0411001534	02-29-2024
E.L. Robinson Engineering			Active	1801 Watermark Dr Suite 310 Columbus, OH 43215	Branch Office	0411001505	02-29-2024
Summit Design and Engineering Services, PLLC	T0306474	Limited Liability Company	Active	2201 W. Broad St.; Suite 204, Richmond, VA 23220	Professional Limited Liability Company Branch Office Registration	0414000034	02/29/24
Summit Design and Engineering Services, PLLC	T0306474	Limited Liability Company	Active	606 Broad St.; Ste C South Boston, VA 24592	Professional Limited Liability Company Branch Office Registration	0414000013	02/29/24

4.2.6: Work History Forms



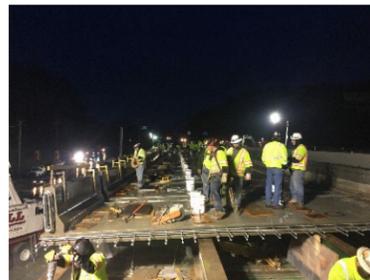
ATTACHMENT 4.2.6(a)

LEAD CONTRACTOR - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client or Owner and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)
					Original Contract Value	Final or Estimated Contract Value	
Name: WV Turnpike Authority Bridge Deck Replacement 1-22, 2-22, 3-22 Location: Various Locations I77 in Mercer and Raleigh Counties WV	Name: HNTB	Name of Client/ Owner: WV Parkway Authority Phone: (304) 926-1900 Project Manager: Danny L. Donlin Jr., PE Phone 304-363-1222 Email: ddonlin@HNTB.com	10/2022	10/2022	\$15,949	\$15,120	\$12,531

h. Narrative describing the Work Performed by the Firm identified as the Lead Contractor for this procurement. If the Offeror chooses to submit work completed by an affiliated or subsidiary company of the Lead Contractor, identify the full legal name of the affiliate or subsidiary and the role they will have on this Project, so the relevancy of that work can be considered accordingly. The Work History Form shall include only one singular project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be considered a single project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be claimed as a single project on this form. If the Offeror chooses to submit work performed as a Joint Venture or Partnership, identify how the Joint Venture or Partnership was structured and provide a description of the portion of the work performed only by the Offeror's firm.



Project Description. Brayman was recently contracted by the West Virginia Parkway Authority (WVPA) to perform an Accelerated Bridge Construction (ABC) Bridge Deck Replacement project. On this Sixth ABC project performed for the WVPA in the last five years, Brayman's scope of work consisted of replacing the multi-span concrete bridge decks on Bridges 1-22, 2-22, and 3-22. The existing decks were removed in phases and replaced with precast concrete deck panels. The closure pours between the panels on bridge decks Ultra High-Performance (UHP) Concrete. The deck construction also required the application of a rolled waterproofing coating system and also received a 2.5-inch asphalt overlay. In addition, the contract included 2,230 linear feet of full depth roadway and shoulder reconstruction with new guardrail installed.

Similarities to the I-77 over RTE 606 Bridge Superstructure Replacement Project Include:

- Bridge Replacements on I-77 within 40 miles of this project location with the same traffic volume
- Phase Demo and Construction over existing roadways, rail lines and waterways.
- Multiple Concrete Mix Designs and QC requirements performed by Contractor
- Development and Implementation of Traffic Control Plans with volumes over 20,000 VPD
- Multiple Utility Relocations and Coordination on all bridges
- Shoulder Widening/Strengthening and Roadway Full Depth Rehabilitation

Challenges. The list of challenges attached to accelerated deck replacement projects are many, but can be highlighted by time constraints, traffic complications, utility coordination, lack of access, and unpredictable weather.

Public Safety/Traffic. For this project, Brayman identified and prepared plans to address the extremely limited construction space and the increased danger and liability of working in close proximity to the public. Out of all of the accelerated bridges Brayman has completed for the WVPA to-date, Bridges 1-20 and 2-20 posed the largest risk when considering public safety. Two of the bridges were in Melrose, an unincorporated community just outside of Princeton, West Virginia. Princeton serves as the nucleus of Mercer County and almost all commuters that travel in and out of the city do so via WV Route 20. Ironically, these bridges are both located directly over RT 20 itself. Advanced traffic control measures were required to ensure the safety of all motorists. In order to alleviate congestion and decrease public exposure to construction hazards, optional detour routes were proposed. In addition, temporary utility and traffic signal relocations were completed to increase construction space and distance construction activities from the general public.

Utilities. In addition to temporary utilities associated with the high average daily traffic (ADT), some permanent utility services along and under the bridge were relocated, while some remained in place. Precautions had to be taken to coordinate the location around the work and access areas as well as protection of the in-place lines. Brayman scheduled and participated in weekly coordination meetings with all parties involved in the utility relocations and work. In all, six utility companies were coordinated to successfully complete the project.

Access. This project was located in multiple locations just outside of Princeton and Ghent, West Virginia. Due to the locations of the bridges, none of the bridges were near a set of on/off ramps. The lack of ramps created an access issue for both equipment and employees as the majority of the materials and tooling was staged below the bridges and at off-site locations. Extra planning was required in order to alleviate all inefficiencies that could have resulted from this lack of access.

Weather. Although Brayman crews routinely work in the cold, rain, and snow, this type of weather impacts the high strength concrete as cold temperatures do not allow for reasonable strength gains. With that being said, cold weather placement and curing procedures were also derived to protect the concrete while progressing in the schedule.

Innovation. The large quantity of Ultra High-Performance Concrete (UHPC) needed for the project posed the opportunity to create an innovative solution. Overall 192 cubic yards of UHPC was placed, 36 cubic yards for each bridge 1-22 and 3-22 and 120 for 2-22. With acknowledgment of the completion constraints and the time needed for curing to reach the required strength before construction loading, Brayman immediately recognized the need for an increased number of 1/3-yard industry standard mixers. Then, while performing planning activities, quickly realized that the necessary number of mixers would not "fit" into the available access areas and promptly devised an effective solution – Logistic Solutions for Moving Mixer Locations During Mixing. Brayman successfully developed and implemented a detailed action plan, which included consideration for the logistics of mixing locations, pour sequencing, mixer moving logistics, and placement within the QC specification and the time constraints.

Early Completion. The bridge decks on 1-22 and 3-22 were anticipated to be replaced within one continuous 127-hour closure for bridge 1-22 and 134 hours for 3-22, completed during separate outages. Bridge 2-22 was anticipated to be completed in one outage in 298 hours. Each bridge was completed in phases one lane at a time to ensure minimal traffic impacts on the highly traveled WV Turnpike, I-77. Overall, the project was completed 59 hours early.

The successful delivery of our seventh ABC Project for the WVPA, on time and under budget, demonstrates Brayman's commitment to putting the necessary time and effort into preplanning and the importance of identifying and controlling any potential issues in advance.

ATTACHMENT 4.2.6(a)

LEAD CONTRACTOR - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client or Owner and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)
					Original Contract Value	Final or Estimated Contract Value	
Name: SGR-Bridge Replacements Over 360 Bus. And Norfolk Southern Railway Location: Amelia County, Virginia	Name: Rummel, Klepper, and Kahl, LLP (RK&K) Richmond, Virginia	Name of Client/ Owner: VDOT, Richmond District Phone: 804-524-6000 Project Manager: Jeromy Cobb, P.E. Phone: 804-586-2255 Email: jeremy.cobb@VDOT.Virginia.gov	06/2022	06/2022	\$7,825	\$7,731	\$6,456

h. Narrative describing the Work Performed by the Firm identified as the Lead Contractor for this procurement. If the Offeror chooses to submit work completed by an affiliated or subsidiary company of the Lead Contractor, identify the full legal name of the affiliate or subsidiary and the role they will have on this Project, so the relevancy of that work can be considered accordingly. The Work History Form shall include only one singular project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be considered a single project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be claimed as a single project on this form. If the Offeror chooses to submit work performed as a Joint Venture or Partnership, identify how the Joint Venture or Partnership was structured and provide a description of the portion of the work performed only by the Offeror's firm.



Project Description. Brayman Construction was contracted by the Virginia Department of Transportation to complete the demolition, removal, and new construction of the East bound and West bound bridges on Route 360, over the Norfolk Southern Railroad mainline railway and Goodes Bridge Road, located in Amelia County, Virginia. Notable items of work performed by Brayman during the completion of the new bridges included; driving foundation piling, driving and removing temporary sheet piling for substructure excavation, driving permanent sheet piling to protect county water main, erection of steel bridge girders, erection and backfill of (4) MSE Walls, as well as roadway grading and drainage development.

Similarities to the I-77 over RTE 606 Bridge Superstructure Replacement Project Include:

- Phased Demo and Construction over existing roadways and rail lines
- Implementation of complex, multiphase Transportation Management Plan (Type B, Category III)
- Multiple Utility Relocations and Coordination
- Shoulder Widening/Strengthening and Roadway Full Depth Rehabilitation
- Installation of MSE Walls for abutment development
- Driving of shoring and foundation piling in close proximate to active traffic
- Notable E&S efforts associated with pipe install, placement of drainage structures, and placement of concrete flumes, curbs, and ditches

Challenges. Challenges included, but were not limited to; (1) planning/scheduling specific work items that interfered with the railway in accordance with NSRR, (2) development of a qualified non-union workforce and the lack of a local workforce, (3) acclimation to working within a new VDOT district where Brayman was not familiar with vendors, subcontractors, or district inspection nuances.

Public Safety/Traffic. Construction was completed in three phases. Phase 1 consisted of constructing temporary West Bound crossovers and the demolition and construction of the new West Bound Bridge. Phase 2 consisted of constructing temporary East Bound crossovers, then demolishing and constructing the new East Bound Bridge. Phase 3 commenced once both West Bound and East Bound bridges were replaced. The crossovers were then removed, median guardrail was installed, and final paving/permanent pavement marking were completed. Throughout this process, Brayman was responsible for safely transferring Route 360 traffic into numerous different configurations, opening and closing exit and entrance ramps, operating 2 and 3 person flagging operations, and implementing detours through the middle of town utilizing Goodes Bridge Road.

Utilities. Multiple permanent utility services under the bridges were relocated, while some remained in place. The majority of the relocations consisted of boring underground lines that bypassed the area of construction influence. Unfortunately, a 12-inch water main wrapped in 24-inch protective casing that supplied water to the town of Amelia, ran directly through the middle of the project and was unable to be relocated. Great care was required as Brayman was tasked with driving permanent shoring approximately 5 feet from the waterline in order provide protection during demo and construction of the new pier footing that was located directly beside the water main. In all, six utility companies were coordinated to successfully complete the project.

Access. The project was located in a rural, non-populated area, southwest of Richmond, Virginia. That being said, the project's close proximity to Midlothian and Richmond made the Route 360 corridor, a vital artery for commuters. As a result, traffic volumes peaked during morning and evening hours, often impacting what work could and could not be performed during those periods. All work was 100% land-based working on the bridges over Goodes Bridge Road and NSRR railway. Brayman Construction was able to obtain and occupy a lay down area with an office/office trailer in close proximity to the project.

Weather. Due to the large amount of temporary and permanent drainage work as well as temporary roadway development that was required, rain was the most challenging weather condition that had the most noticeable impact on the projects overall schedule.

Innovation. The project originally called for a Light Weight Aggregate as MSE wall structural backfill. Lightweight backfills are often used when poor sub-surface conditions exist below the bridge abutment that may cause potential settlement issues. Post-Bid, Brayman explored several innovative solutions that could serve as viable LWA alternatives. Ultimately, Brayman joined forces with CJ Geo, a subcontractor specializing in the batching and placement of Low-Density Cellular Concrete. Low-density cellular concrete is defined as concrete made with hydraulic cement, water, and preformed foam to form a hardened material having an oven-dry density of 50 lb./ft3 or less. Brayman was able to obtain VDOT approval to use CJ Geo's LDCC product as an acceptable LWA alternative for MSE wall structural backfill. This event marked the 1st time LDCC had been utilized as backfill in a bridge abutment MSE wall in the state of Virginia. VDOT was impressed with the performance of the product as well as Brayman's installation techniques. As a result, VDOT has featured this project at several technical conferences and plans to complete an internal investigation to determine the viability of this process on future projects.

Early Completion. Although this project did not include any form of early completion incentive, the project was final accepted by VDOT and completed by the contract defined completion date. This work was all completed without any recordable safety incidents or erosion and sediment control issues and received positive reviews from VDOT throughout the entirety of the project.

This project marks Brayman's first project completed in the Richmond District, VDOT's Central Office District. The successful delivery of this project for VDOT, on time and under budget, demonstrates Brayman's commitment to building and further developing a fair and equitable relationship with the Department that should be advantageous in a design-build setting.

ATTACHMENT 4.2.6(a)

LEAD CONTRACTOR - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client or Owner and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)
					Original Contract Value	Final or Estimated Contract Value	
Name: Tom Williams Family +3 Design-Build Location: Kanawha County, WV	Name: CDM Smith	Name of Client/ Owner: WVDOH, District 1 Phone: (304) 558-3001 Project Manager: Jason Hamilton, PE Phone: (304) 356-3816 Email: jason.g.hamilton@wv.gov	06/2018	01/2021	\$19,555	\$20,494	\$13,821

h. Narrative describing the Work Performed by the Firm identified as the Lead Contractor for this procurement. If the Offeror chooses to submit work completed by an affiliated or subsidiary company of the Lead Contractor, identify the full legal name of the affiliate or subsidiary and the role they will have on this Project, so the relevancy of that work can be considered accordingly. The Work History Form shall include only one singular project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be considered a single project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be claimed as a single project on this form. If the Offeror chooses to submit work performed as a Joint Venture or Partnership, identify how the Joint Venture or Partnership was structured and provide a description of the portion of the work performed only by the Offeror's firm.



Project Description. Brayman Construction Corporation was contracted by the West Virginia Division of Highways to provide design and construction services for the Tom Williams Family +3 project located in Kanawha County, WV. Brayman, together with lead designer CDM Smith, worked to design and renovate five interstate bridges, which carry I-77 and I-64 over existing local roadways, which have very high traffic volumes. The following bridges were included in the project: Tom Williams Family Bridge; Westmoreland Drive Overpass Bridge; Cora Street Overpass Bridge; Danner Street Overpass Bridge; and Spring Street Overpass Bridge.

Brayman's scope included self-performing key operations such as bridge deck and parapet replacement, concrete approach replacements, super/substructure rehabilitation support work, subcontractor coordination and overall project management. CDM Smith, as lead designer, provided all necessary services and coordination required to perform design, preliminary engineering, surveying, geotechnical, lighting, signing and pavement marking, permitting, construction, and utility coordination. CDM Smith oversaw all design activities and performed bridge design, roadway design, traffic design and management, environmental permitting, and public involvement services. A composite of key staff from both Brayman and CDM Smith were assembled to provide quality control oversight. All of the bridges were to be completed in an accelerated manner and it was Brayman's and CDM Smith's design and construction methods which dictated which methods to be employed to meet the required timeframes in the contract for disruption to interstate traffic.

Similarities to the I-77 over RTE 606 Bridge Replacement Project.

- Heavily Traveled Urban Area and Interstate Bridge System Rehabilitation with over 50,000 VPD average
- Public outreach and Coordination during all phases and aspects of the project.
- Time sensitive, critical subcontractor coordination for structural steel repairs, structure re-painting, concrete reinforcement installation and bituminous milling and paving work.
- The project also included a public information campaign, a comprehensive TTCP and TMP, utility coordination, environmental permitting, sign structure replacement, and ITS coordination.
- The teamwork between CDM Smith and Brayman, utilizing the talents of both firms, resulted in a rapidly completed project, which saved the WVDOH and traveling public time and money.

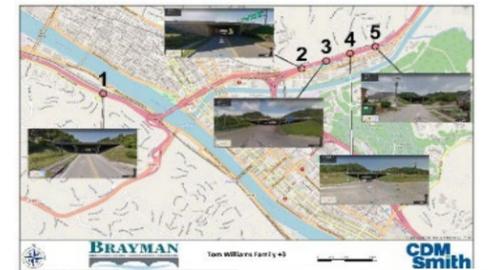


Challenges. Due high traffic volumes on these interstate bridges and tight urban working areas all of the material and equipment had to be coordinated and delivered timely and adequately to support the pace of the project. A local storage was utilized to allow for influx of materials and equipment to support the on-site operations. An extremely well-developed logistical communication plan was implemented so all involved knew where materials and equipment were located at any given time during the weekend closure process. Another large construction coordination and challenge during the work was subcontractor coordination for critical superstructure steel repairs and re-painting along with Interstate approach roadway milling and bituminous paving. All of this work had to be completed timely while working to maintaining traffic movements in a highly urban area. CDM Smith was responsible for the bridge rehabilitation design, roadway resurfacing, drainage, temporary traffic control, signing and pavement markings, transportation management, public involvement, utilities, and permitting. To justify closing the Westmoreland ramps, which eliminated a construction phase. CDM Smith conducted a traffic study on the surface streets affected by the closure and determined the traffic network could reasonably accept the re-routed traffic.

Public Safety/Traffic: Traffic and public coordination was a huge factor for the success of the project and multiple public meetings and press releases kept the public informed of the project, changes to traffic before, during and following construction and progress of the work. The design of several ramp closures and temporary detours of these ramps to restrict Interstate congestion and provide for a safer travel experience for Interstate through traffic traversing the project area. CDM Smith also developed a VISSIM model to determine the extent of traffic impacts caused by closing a lane in the downtown area which has several interchanges to access downtown Charleston. CDM Smith's Transportation Management Plan (TMP) and temporary traffic control plan (TTCP) developed and presented strategies to mitigate the closure impacts.

Innovation. Brayman's team implemented innovative accelerated construction methods and techniques in forming and placement of a conventional cast-in-place deck system while coordinating structural steel repairs to the existing superstructure deck support members. A total of 100,000 SF of deck surface was replaced in less than 120 days which consisted of four of the five structures on the project and a significant traffic phasing shift between operational sides of the highway to permit the project to be completed in half width construction.

Early Completion. The final structure totaling 15,000 SF of deck surface was replaced in 35 days, 25 days faster than the allotted 60 days and earned Brayman an additional bonus.



RELEVANT EXPERIENCE IDENTIFIED ON THIS PROJECT

- SIMILAR EIC ROLE ASSIGNMENT REQUIREMENT
- DESIGN-BUILD DELIVERY METHOD
- INTERSTATE BRIDGE CONSTRUCTION
- MOT / TRAFFIC MANAGEMENT CRITICAL

ATTACHMENT 4.2.6(b)

LEAD DESIGNER - WORK HISTORY FORM

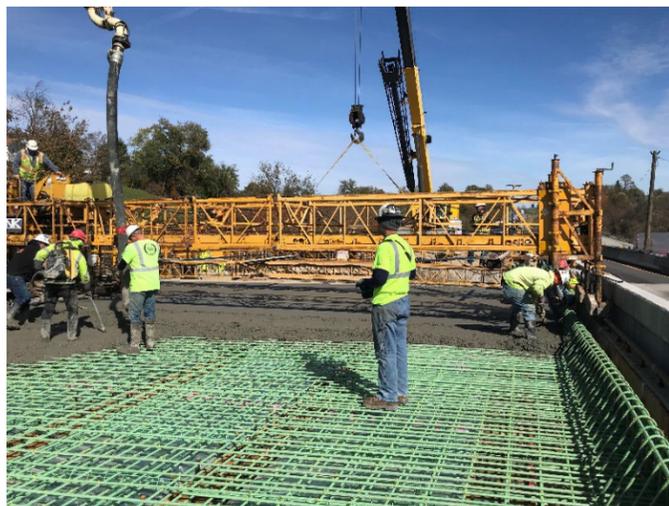
(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime/ general contractor responsible for overall construction of the project.	c. Contact information of the Client and their Project Manager who can verify Firm’s responsibilities.	d. Construction Contract Start Date	e. Construction Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement.(in thousands)
					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
Name: I-70 Longwall Mining Exit 11 to PA Stateline (Panel Nos. 15 thru Panel 22) Location: Ohio County, WV	Name: Swank Construction / Kelly Paving, Chuck Debick, PE / Chad Taylor (724) 323-5026 / (740) 819-4279 chuckd@swankco.com c.taylor@shellyandsands.com	Name of Client.: West Virginia Department of Highways Phone: (304) 843-4048 Project Manager: Michael Witherow, PE District Construction Engineer Email: michael.witherow@wv.gov	12/2018	05/2024 (Estimated)	\$48,500	\$35,000 (Estimated)	\$7,600 (Estimated)

h. Narrative describing the Work Performed by the Firm identified as the Lead Designer for this procurement. Include the office location(s) where the design work was performed and whether the firm was the prime designer or a subconsultant. The Work History Form shall include only one singular project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be considered a single project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be claimed as a single project on this form.

Tunnel Ridge Mining’s operations is working on eight longwall panels (Nos. 15-22) in the Pittsburgh Seam under I-70, which includes a set of dual bridges over Stoolfire Road. The seam is 7 feet thick and 800 feet below the interstate. Common law allows the owner of the mineral rights to subside the ground surface in order to extract the coal. The predicted subsidence from longwall mining ranges from 4 to 5 feet to the roadway of Interstate 70. The longwall panels are three miles long and approximately 1,200 feet wide with a 60°-skew crossing the interstate. E. L. Robinson Engineering (ELR), in a modified design-build delivery method, was contracted by WVDOH to provide all operational, engineering, monitoring, inspection, and administration guidance for pre /post mining and to restore I-70 back to a 70-mph design speed after subsidence. ELR is engineer of record of all designs including bridge, roadway, maintenance of traffic, signing, pavement marking, and plans for repairs and reconstruction of I-70 mainline as well as the ramps exiting and entering from the Welcome Center site and the dual bridges over Stoolfire Road which serves as the only local north -south access to the local community. The ELR offices of Raleigh and Chantilly were the lead offices supply the engineering, project administration, team coordination, liaison, monitoring, construction oversight, and quality management.

With an ADT of over 65,000 VPD, the traffic operations were maintained while active subsidence issues occurred. Stakeholder coordination was undertaken for WVDOH, PennDOT, and Tunnel Ridge Mining. In Panel 20, ELR developed three alternative concepts for community access on Stoolfire Road to account for a set of existing dual bridges in the subsidence envelope. The concepts ranged from elimination to new construction along with associated inter connectivity. Two temporary steel girder bridges were designed and construction to account for 60 inches of vertical subsidence and a lateral movement exceeding 18 inches. Additionally, a set of dual bridges, steel girder, single spans having two travel lanes in each direction with shoulders were designed. These temporary and permanent bridges replaced a set of dual, three span continuous steel girder bridges. New bridges are complete and open to I-70 traffic.



RELEVANT EXPERIENCE IDENTIFIED ON THIS PROJECT

- SIMILAR EIC ROLE ASSIGNMENT REQUIREMENT
- DESIGN-BUILD DELIVERY METHOD
- INTERSTATE BRIDGE CONSTRUCTION
- MOT / TRAFFIC MANAGEMENT CRITICAL

ATTACHMENT 4.2.6(b)

LEAD DESIGNER - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime/ general contractor responsible for overall construction of the project.	c. Contact information of the Client and their Project Manager who can verify Firm’s responsibilities.	d. Construction Contract Start Date	e. Construction Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement.(in thousands)
					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
Name: HAM-74-18.01 Design Build (Mill Creek Expressway 5B) Location: Cincinnati, Ohio	Name: Great Lakes Construction Co. Jason Tucker (216) 210-0132	Name of Client.: Ohio Department of Transportation District 8 Charlie Rowe (513) 933-6596	August 2021	June 2025 (Estimated)	\$85M	N/A	\$7,000 (Actual)

h. Narrative describing the Work Performed by the Firm identified as the Lead Designer for this procurement. Include the office location(s) where the design work was performed and whether the firm was the prime designer or a subconsultant. The Work History Form shall include only one singular project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be considered a single project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be claimed as a single project on this form.

E.L. Robinson Engineering (ELR) was the lead designer for the HAM-74-18.01 Mill Creek Expressway, Phase 5B (known as 5B) design-build project in Hamilton County, Ohio. ELR’s Cleveland and Columbus offices teamed with The Great Lakes Construction Co. (GLC) and was awarded the project in August of 2021 with a low bid of \$84.9M. This complex urban interstate project consists of reconstruction of half of the interchange with I-74 and I-75 on the north side of Cincinnati. The main component of the project consists of a 1900’ flyover bridge carrying I-75 southbound to I-74 westbound which cross two railroads consisting of three tracks, the Mill Creek and Spring Grove Ave. This 10 span, continuous welded steel plate girder structure was designed as two units, includes both driven pile and drilled shaft foundations and includes a 48’ wide straddle bent pier to accommodate a ramp. The project also consists of 4 major bridge rehabilitations, a new pedestrian bridge, new prestressed I-girder concrete bridge, and 11 retaining walls. Roadway work includes 1.2 miles of pavement replacement, widening the typical section to include 3 lanes of traffic, relocation of three local streets and 2600’ of noise barriers.

During the bidding process, the ELR/GLC team received approval for an Alternative Technical Concept which revised the scoped basic configuration of the project and eliminated half of a ramp bridge providing significant savings and ultimately leading to the being the successful bidder. Additional project requirements included heavy utility coordination and relocation, coordination with two railroad owners, 404/408 USACE permits, local/stakeholder coordination and a compressed design schedule of 9 months!



RELEVANT EXPERIENCE IDENTIFIED ON THIS PROJECT

- SIMILAR EIC ROLE ASSIGNMENT REQUIREMENT
- DESIGN-BUILD DELIVERY METHOD
- BRIDGE REPLACEMENT
- MOT / TRAFFIC MANAGEMENT CRITICAL

ATTACHMENT 4.2.6(b)

LEAD DESIGNER - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

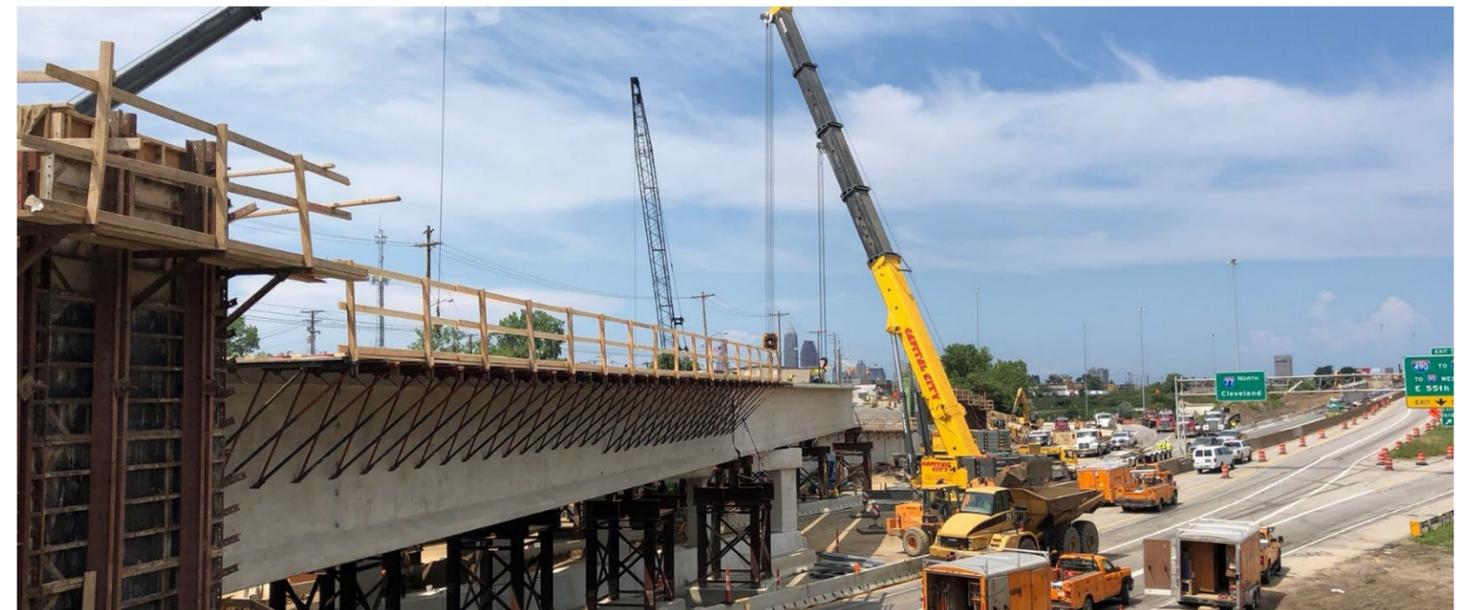
a. Project Name & Location	b. Name of the prime/ general contractor responsible for overall construction of the project.	c. Contact information of the Client and their Project Manager who can verify Firm’s responsibilities.	d. Construction Contract Start Date	e. Construction Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement.(in thousands)
					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
Name: CUY-77-13.80 CCG6B Design Build Location: Cleveland, Ohio	Name: Kokosing Construction Company Scott Mesick (614) 228-1029	Name of Client.: Ohio Department of Transportation District 12 David Lastovka (216) 584-2115	Feb. 2017	Sept. 2019	\$30M	\$30.2M (Actual)	\$2,100

h. Narrative describing the Work Performed by the Firm identified as the Lead Designer for this procurement. Include the office location(s) where the design work was performed and whether the firm was the prime designer or a subconsultant. The Work History Form shall include only one singular project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be considered a single project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be claimed as a single project on this form.

This project consists of replacing the CUY-77-1409 structure carrying Broadway Avenue (SR-14) over IR-77 and reconfiguring the ramps from IR-490EB/WB to IR-77SB to provide standard lane width and merge distances in Cleveland, Ohio. The existing ramp from Broadway Avenue to IR-77SB was reconstructed into Frontage Road to Pershing Avenue. The intersections of Broadway Avenue with Gallup Avenue, Roseville Court, and Dille Avenue were also reconstructed to match any vertical changes to Broadway and improve curb radii. The mainline lanes of IR-77SB, were resurfaced as part of this project. A multi-use path was constructed along the Frontage Road between Broadway and Pershing Avenues.

A congested urban environment and prescriptive scope requirements required innovative retaining wall designs to minimize conflicts with existing underground utilities. The unique retaining wall designs include jet grouting to construct a concrete gravity wall in place with minimal excavation, underpinning an existing retaining wall with jet grouting, and a 23’ high soldier pile wall with two rows of soldier piles to span over a fiber optic duct bank without using ground anchors, which the project scope placed restrictions on using. Working with the contractor and specialty subcontractors, ELR designed the unique retaining walls out of the Columbus and Cleveland, Ohio offices on a compressed design schedule typical for design-build projects.

The 400’ two-span precast concrete beam semi-integral bridge replaced the existing 63-degree skew bridge. The 114”, post-tensioned girders are supported on full height abutments and a cap and column pier and feature prescribed aesthetic elements consistent with the I-77 corridor.



6.2.2: Proposal Schedule Narrative



SOUTH GAP – PROPOSAL SCHEDULE NARRATIVE

The proposal baseline schedule has been developed utilizing Primavera P6 (Version 16.2). This software is compatible with Version 6.2 which is currently being utilized by VDOT. The following software settings have been utilized:

- Schedule units are work days (hours per work day defined below)
- Retained Logic scheduling methodology
- Calculates start to start lags from early start
- Critical Path is set to longest path
- Total Float equals late finish minus early finish

CALENDARS

- 4 – 10 HR Days
 - Monday through Thursday, 10 hours per work day
 - In the event that a None Work Day (Weather Related) is encountered, Friday will be utilized as the makeup day, weather pending.
 - All work scheduled for day shift, requests for night shift work will be requested in writing on an as-needed basis
 - Holidays Reflected
 - New Year's Day
 - Memorial Day
 - Independence Day
 - Labor Day
 - Thanksgiving Day
 - Christmas Eve
 - Christmas/New Year's Shutdown – 1 week
- 7 Day Submittal
 - Monday through Sunday, 8 hours per work day
 - No holidays
- C&G TOYR
 - Reflects limits of time of year restrictions for clearing and grubbing activities as defined in the proposal documents.
- Nesting Birds TOYR
 - Reflects limits of time of year restrictions for demolition activities that involve structures inhabited by nesting birds as defined in the proposal documents.

WORK BREAKDOWN STRUCTURE

The schedule has been developed using the following major Work Breakdown Structure (WBS) divisions:

1. Permits and Utilities

1.1. This portion of the schedule reflects the time anticipated to procure all applicable construction permits as well as complete all utility relocations. It has been projected that a total of 7 months from the Notice to Proceed Date will be required to complete these items. All work in this division of the WBS structure is located on the project's critical path and must be completed before any mobilization to project site should be started.

2. Design

2.1. This portion of the schedule reflects the time anticipated to complete all of the engineering design development in order to satisfactorily complete the project. It is anticipated that all work in this division of the WBS will be performed simultaneously as the permit and utility work that should already be underway. Due to the nature of engineering design, and the fact that 100% design does not have to complete in order to mobilize to the project site, these items are not located on the project's critical path. As intended, the contractor and the consulting engineer will work together to prioritize individual design elements as they pertain to construction sequencing and, as a result, will further develop the detail of this WBS division together at a later date. The current schedule shows a total of 7 months are anticipated to complete 100% of the engineering design. Ultimately, this overall duration may shorten or lengthen based on the contractor's construction sequencing needs without immediately impacting the project's critical path.

3. Submittals/Approvals/Procurements

3.1. This portion of the schedule reflects the time anticipated to complete submittal reviews and key material procurements and/or fabrication. 30 calendar days have been allocated for the Department to review each submittal. The 30 calendar day duration is intended to model an initial Department review of 14 days, a contractor revision of 8 days, and second Department review lasting no more than 8 days. In a typical bid-build setting, these submittal reviews may regularly be found on the project's critical path but, due to the design-build format of this project, these submittals can ultimately be developed and reviewed during the 7 months of design, permit procurement, and utility relocation. As a result, the project should never be at a risk of delay as a result of any of the items listed in this WBS division.

4. Construction

4.1. Preliminaries

4.1.1. Operations staff will begin mobilizing to the project site and developing office locations in October 2023. In addition to mobilization and office development, startup

traffic control will be installed, erosion and sediment control will be developed, RTE 606 temporary barrier will be installed, and clearing and grubbing will commence. This work will continue into November 2023.

4.2. Phase 1 – Slow Lane

- 4.2.1. Temp. MOT - This phase of construction will consist of demoing the fast lane shoulder on I-77 and then completing shoulder strengthening to allow for traffic flow to run on the fast lane shoulder throughout Phase 1 construction. Time will be of the essence as this work must be completed before the 2023 asphalt season ends. The majority of this work will be performed at night under single lane closures.
- 4.2.2. Demo - This phase of construction will consist of demoing the Phase 1 portion of the structure as well as installation of temporary shoring at the abutments that will be required in order to safely complete abutment excavation in preparation of MSE wall installation. This work is scheduled to start in November 2023 and continue through January 2024.
- 4.2.3. Substructure - This portion of construction will consist of installation of all foundation piling, installation of the Phase 1 portion of the MSE Walls, and the placement of all substructure concrete. This work is scheduled to start in December 2023 and continue through May 2024.
- 4.2.4. Superstructure - This phase of construction will consist of the erection of structural steel, the completion of all superstructure concrete, the installation of the remaining MSE wall pieces, and the development of both bridge approaches in order to allow for construction of the approaching roadway section. This work is scheduled to start in May 2024 and continue through July 2024.
- 4.2.5. Roadway - This phase of construction will include the installation of all Phase 1 shoulder fills and slope armor as well as the development of the final roadway section including base stone placement, installation of underdrains, placement of asphalt, and the installation of new guardrail. The segment of the schedule that includes shoulder fill development will take place from February 2024 to May 2024. Once all superstructure work has been completed and the approach slabs have been placed, work will begin on developing the approaching roadway section. This work is scheduled to start in July 2024 and continue through August 2024.

4.3. Drainage

- 4.3.1. Wing Walls - This phase of construction will consist of demoing and replacing the concrete wing wall located on the North East corner of the bridge. It is anticipated that a crane will need to be mobilized to this area in order to drive temporary shoring that is required to complete wing wall reconstruction. In order to provide access for the crane, a portion of the NE shoulder fill will be installed. This work is scheduled to start in December 2023 and continue through January 2024.

4.3.2. RTE 606 – 36” Pipe - This phase of drainage construction will consist of installing drainage structures 4-4, 4-3, and 4-2 as well as both runs of 36 inch pipe that connect the structures and the pipe under the westbound lane of RTE 606. This work is scheduled to start in January 2024 and continue through February 2024. Once all shoulder fill construction has been completed, construction efforts will resume on the installation of drainage structures that are away from mainline bridge construction. The first order of business will be to complete the install of structure 4-1, all associated 36 inch pipe, and then restore the eastbound lane of RTE 606.

4.3.3. Exit Ramp – 36” Pipe - This phase of drainage construction will consist of installing drainage structures 4-5, 4-6, and both runs of 36 inch pipe that connect the structures as well as the complete restoration of the demoed exit ramp. This work is scheduled to take place in May 2024.

4.4. Phase 2 – Fast Lane

4.4.1. This phase of construction is simply a repeat of the Phase 1 construction items, but on the fast lane portion of I-77. This work is planned to start in August 2024 and continue through September 2025. Once traffic has been released to its final configuration on I-77, this will mark the completion of all mainline construction activities. All remaining work will be associated with RTE 606.

5. Finals

5.1. This phase of the project will consist of installation of new guardrail and asphalt on RTE 606, restoration of the entire project site footprint to its original condition, and the demobilization of all construction related items. This work is planned to start in August 2024 and continue through September 2025 which will mark the end of construction.

5.2. Due note that a 60 calendar day activity is included in the proposal schedule to earmark the early completion incentive window.

SCHEDULE DETAILS

The following Constraints have been included:

- Activity A1000: Notice to Proceed– Start On or After
- Activity A2540: Contract Completion Date– Finish On or Before

The following Milestones have been included:

- N/A

CREW SIZES

- 100TN Crawler Crane
 - 1 Crane Operator

Response to Request for Proposals
I-77 over Route 606 Bridge Replacement
Bland County, Virginia

- 1 Carpenter/Pile Driver
- 1 Laborer
- Crew 1 – Structure Work
 - ½ Superintendent
 - 1 Carpenter Foreman
 - 1 Operator
 - 1 Laborer
- Crew 2 – Drainage and Earth Work
 - ½ Superintendent
 - 1 Operator Foreman
 - 1 Carpenter
 - 1 Laborer

CRITICAL PATH

Critical Activities.....82

- A1000 Notice to Proceed
- A1010 Mobilization
- A1020 VDOT Office Setup
- A1030 Startup Traffic Control Setup
- A1040 Install Erosion and Sediment Controls
- A1190 Phase 1 - Install I-77 Temp. Barrier
- A1210 Phase 1 - Place Shoulder Strengthening Asphalt
- A1260 Phase 1 - Demo Existing Fast Shoulder
- A1310 Phase 1 - Remove Parapet
- A1320 Phase 1 - Remove Deck Concrete
- A1330 Phase 1 - Remove (6) Girders
- A1350 Phase 1 - Abut B Roadway Temp. Shoring
- A1360 Phase 1 - Abut B Demo and Excavation
- A1370 Phase 1 - Abut A Demo and Excavation
- A1420 PLUG - To be Adjusted
- A1430 Phase 1 - Abut A Drive Foundation Piling
- A1440 Phase 1 - Abut A Excavation for MSE Wall
- A1450 Phase 1 - Abut A Form/Pour MSE Wall Leveling Pads
- A1460 Phase 1 - Abut A Set/Backfill MSE Wall to Pile Cap Elev
- A1490 Phase 1 - Abut A Roadway Temp. Shoring
- A1510 Phase 1 - Abut A Form/Pour Pile Cap
- A1520 Phase 1 - Abut A Precast Coping Under Beams
- A1530 Phase 1 - Abut A Backfill + Pour 4 Inch Slab
- A1540 Phase 1 - Abut A Form/Pour Stem
- A1550 Phase 1 - Abut B Drive Foundation Piling
- A1560 Phase 1 - Abut B Excavation for MSE Wall

Response to Request for Proposals
I-77 over Route 606 Bridge Replacement
Bland County, Virginia

A1570 Phase 1 - Abut B Form/Pour MSE Wall Leveling Pad
A1580 Phase 1 - Abut B Set/Backfill MSE Wall to Pile Cap Elev
A1640 Phase 1 - Erect Structural Steel
A1650 Phase 1 - Abut A Form/Pour Backwall
A1660 Phase 1 - Abut B Form/Pour Backwall
A1700 Phase 1 - Abut A/B Form Pour Wing Walls
A1730 Phase 1 - Abut A Set/Backfill Remainder of MSE Wall
A1740 Phase 1 - Abut A Form/Pour Sleeper Slab
A1750 Phase 1 - Abut A Form/Pour Approach Slab
A1770 Phase 1 - Abut A CIP Coping
A1780 Phase 1 - Abut B Elastic Inclusion + Wall Drain
A1790 Phase 1 - Abut B Set/Backfill Remainder of MSE Wall
A1830 Phase 1 - Place Base Stone + Underdrain
A1840 Phase 1 - Install Guardrail
A1850 Phase 1 - Place Asphalt
A1870 Phase 2 - Install I-77 Temp. Barrier
A1890 Phase 1 - Remove I-77 Guardrail
A1960 Phase 2 - Remove Parapet
A1970 Phase 2 - Remove Deck Concrete
A1980 Phase 2 - Remove (12) Girders
A2080 Phase 2 - Abut A Set/Backfill MSE Wall to Pile Cap Elev
A2110 Phase 2 - Abut B Demo and Excavation
A2120 Phase 2 - Abut B Remove Temp. Shoring
A2140 Phase 2 - Abut A Form/Pour Pile Cap
A2150 Phase 2 - Abut A Precast Coping Under Beams
A2160 Phase 2 - Abut A Backfill + Pour 4 Inch Slab
A2170 Phase 2 - Abut A Form/Pour Stem
A2180 Phase 2 - Abut B Drive Foundation Piling
A2190 Phase 2 - Abut B Excavation for MSE Wall
A2200 Phase 2 - Abut B Form/Pour MSE Wall Leveling Pad
A2210 Phase 2 - Abut B Set/Backfill MSE Wall to Pile Cap Elev
A2270 Phase 2 - Erect Structural Steel
A2280 Phase 2 - Abut A Form/Pour Backwall
A2290 Phase 2 - Abut B Form/Pour Backwall
A2330 Phase 2 - Abut A/B Form Pour Wing Walls
A2360 Phase 2 - Abut A Set/Backfill Remainder of MSE Wall
A2370 Phase 2 - Abut A Form/Pour Sleeper Slab
A2380 Phase 2 - Abut A Form/Pour Approach Slab
A2400 Phase 2 - Abut A CIP Coping
A2410 Phase 2 - Abut B Elastic Inclusion + Wall Drain
A2420 Phase 2 - Abut B Set/Backfill Remainder of MSE Wall
A2460 Phase 2 - Place Base Stone + Underdrain
A2500 Phase 2 - Install Shoulder Drainage (Stone + Concrete)
A2540 Contract Completion Date

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Bland County, Virginia

A2550 Early Completion Incentive
A2560 RTE 606 Final Seed and Remove E&S
A2570 RTE 606 Remove all Temp. Barrier and Atten.
A2580 RTE 606 Install Guardrail
A2590 RTE 606 Mill/Fill Asphalt
A2600 Final Traffic Control Update
A2610 Demobe
A2630 Phase 1 - Install Temp. Pavement Markings + Switch Traffic
A2650 Drive Temp. Shoring
A2660 Phase 2 - Install Temp. Pavement Markings + Switch Traffic
A2670 Phase 2 - Remove Phase 1 Temp. Barrier
A2870 Phase 2 - Remove I-77 Guardrail

Response to Request for Proposals

VOLUME II LETTER of SUBMITTAL and ATTACHMENTS

I-77 over Route 606 Bridge Replacement Bland County, Virginia

State Project No.: 0077-010-834, P101, C501, B644

Federal Project No.: NHFP-077-2(341)

Contract ID No.: C00117110DB115

*Submitted by: Brayman Construction Corporation
with E.L. Robinson Engineering*



4.2.7: Conceptual Roadway Plans



FOR INDEX OF SHEETS SEE SHEET 1B

THIS PROJECT WAS DEVELOPED UTILIZING THE DEPARTMENT'S ENGINEERING DESIGN PACKAGE (OpenRoads Designer). UPC_117110



COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE OF PROPOSED
STATE HIGHWAY
RFP PLANS

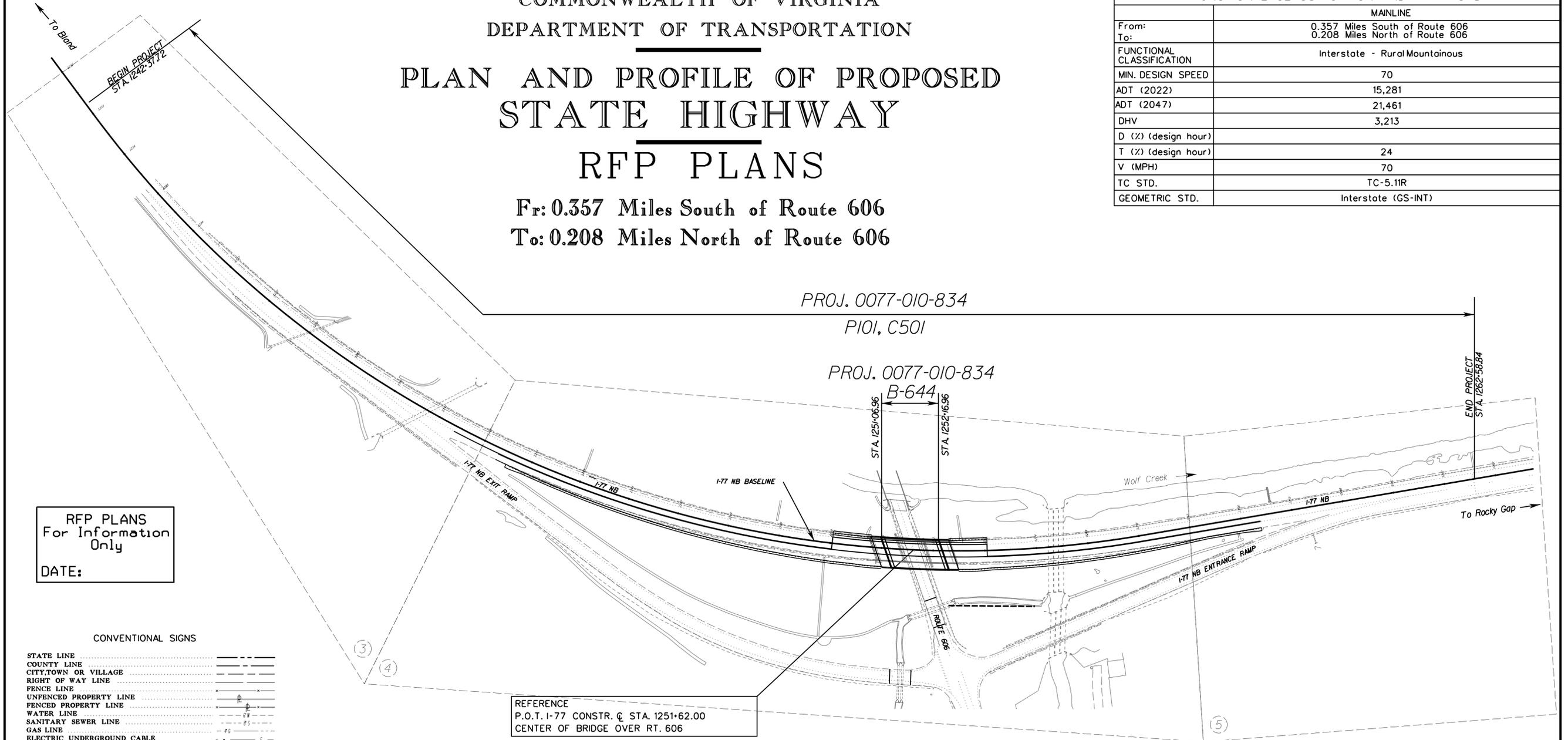
Fr: 0.357 Miles South of Route 606
To: 0.208 Miles North of Route 606

FHWA 534 Data IIIII

STATE	FEDERAL AID PROJECT	ROUTE	STATE PROJECT	SHEET NO.
VA.	NHFP-077-2(1) <small>(SEE TABULATION BELOW FOR SECTION NUMBERS)</small>	77	(FO) 0077-010-834	1

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA	
MAINLINE	
From:	0.357 Miles South of Route 606
To:	0.208 Miles North of Route 606
FUNCTIONAL CLASSIFICATION	Interstate - Rural Mountainous
MIN. DESIGN SPEED	70
ADT (2022)	15,281
ADT (2047)	21,461
DHV	3,213
D (%) (design hour)	
T (%) (design hour)	24
V (MPH)	70
TC STD.	TC-5.11R
GEOMETRIC STD.	Interstate (GS-INT)

PROJECT MANAGER ROBERT C. LEONARD, P.E., (276) 696-3258 (BRISTOL DISTRICT)
SURVEYED BY, DATE LES BYRNESIDE, L.S., (804) 330-3781 (H&B SURVEYING AND MAPPING, LLC.), 1/10/2022
DESIGN BY HDR ENGINEERING, INC., (540) 278-2400 (ROANOKE, VIRGINIA)
SUBSURFACE UTILITY BY, DATE ACCUMARKS, 1/12/2022



RFP PLANS
For Information
Only
DATE:

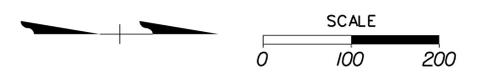
CONVENTIONAL SIGNS

STATE LINE	---
COUNTY LINE	----
CITY, TOWN OR VILLAGE	-----
RIGHT OF WAY LINE	-----
FENCE LINE	-----
UNFENCED PROPERTY LINE	-----
FENCED PROPERTY LINE	-----
WATER LINE	-----
SANITARY SEWER LINE	-----
GAS LINE	-----
ELECTRIC UNDERGROUND CABLE	-----
TRAVELED WAY	-----
GUARD RAIL	-----
RETAINING WALL	-----
RAILROADS	-----
BASE OR SURVEY LINE	-----
LEVEE OR EMBANKMENT	-----
BRIDGES	-----
CULVERTS	-----
DROP INLET	-----
POWER POLES	-----
TELEPHONE OR TELEGRAPH POLES	-----
TELEPHONE OR TELEGRAPH LINES	-----
HEDGE	-----
TREES	-----
HEAVY WOODS	-----
GROUND ELEVATION	-----
GRADE ELEVATION	-----

Population Bland County, 6,270 (2020 Census)

STATE PROJECT NO.	SECTION	FEDERAL AID PROJECT NO.	TYPE CODE	UPC NO.	EQUALITIES		LENGTH INCLUDING BRIDGE(S)		LENGTH EXCLUDING BRIDGE(S)		BRIDGE PLAN NO.	TYPE PROJECT	DESCRIPTION
					FEET	MILES	FEET	MILES	FEET	MILES			
0077-010-834	P101	NHFP-077-2(321)		117110			2981.12	0.565	2871.12	0.544		Prel. Engr.	Fr: 0.357 Miles South of Route 606 To: 0.208 Miles North of Route 606
	B644	NHFP-077-2(321)	X271	117110			110	0.021			185-15	Bridge	Bridge carrying I-77 NBL over Rt. 606 (State Str. No. 2023)
	C501	NHFP-077-2(343)	I000	117110			2981.12	0.565	2871.12	0.544		Construction	Fr: 0.357 Miles South of Route 606 To: 0.208 Miles North of Route 606

All construction is to be performed within the existing right of way.



Project Lengths are based on I-77 Construction Centerline.

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PROJECT MANAGER: ROBERT C. LEONARD, P.E. (276) 696-3258 (BRISTOL DISTRICT)
 SURVEYED BY, DATE: LES. BYRNESIDE, L.S. (804) 330-3781 (H&B SURVEYING AND MAPPING, LLC.), 1/10/2022
 DESIGN BY: HDR ENGINEERING, INC. (540) 278-2400 (ROANOKE, VIRGINIA)
 SUBSURFACE UTILITY BY, DATE: ACCUMARK, 1/12/2022

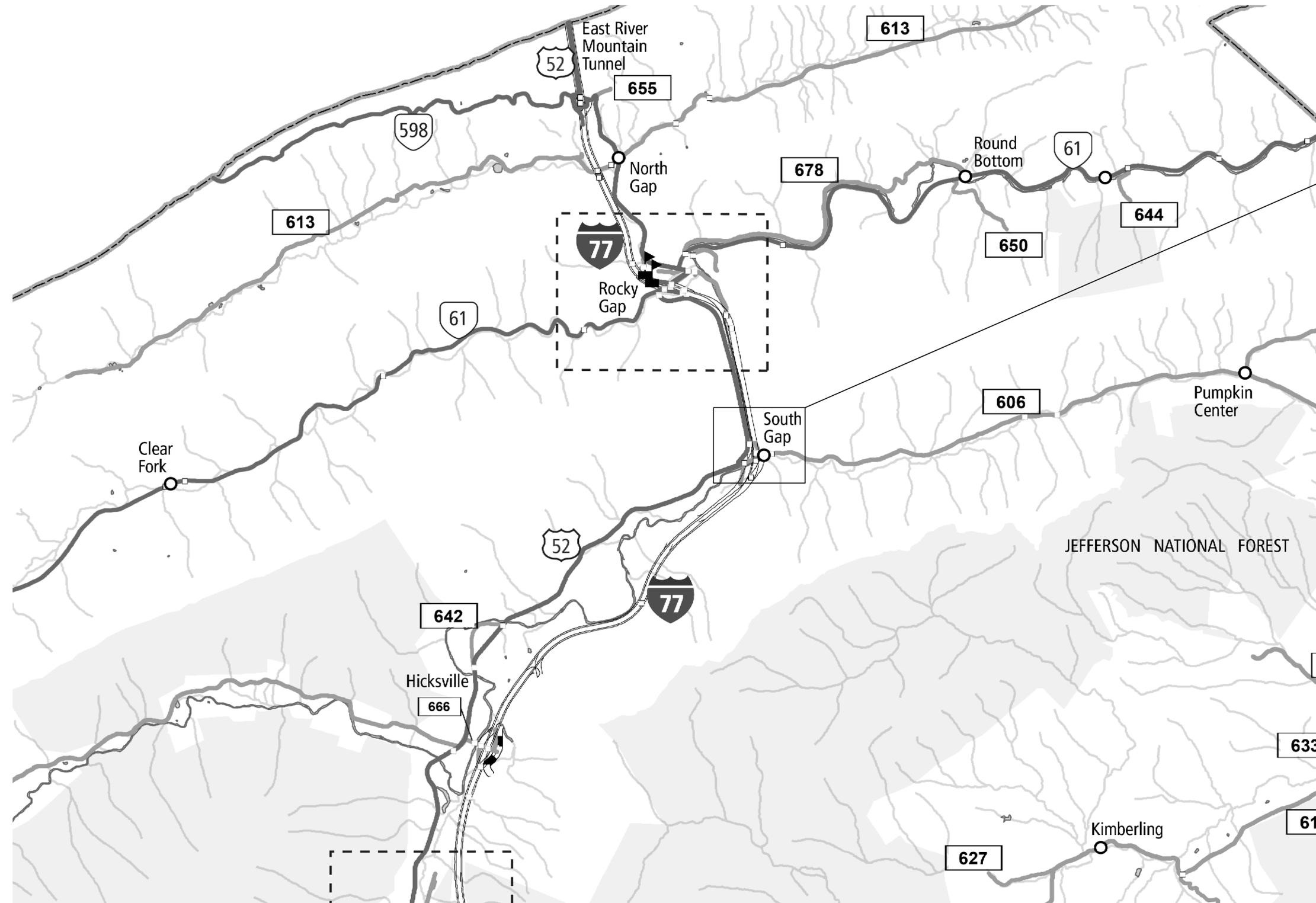
LOCATION MAP

BLAND COUNTY

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	77	0077-010-834, C501	1A

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

BLAND COUNTY
POPULATION 6,270
2020 CENSUS



I-77 OVER ROUTE 606
PROJECT *0077-010-834,
B644, P101, C501

RFP PLANS
For Information
Only
DATE:

NOT TO SCALE	PROJECT 0077-010-834	SHEET NO. 1A
--------------	-------------------------	-----------------

PROJECT MANAGER ROBERT C. LEONARD, P.E. (276) 696-3258 (BRISTOL DISTRICT)
 SURVEYED BY, DATE LES. BY/NSIDE, L.S. (804) 330-3781 (H&B SURVEYING AND MAPPING, LLC), 1/10/2022
 DESIGN BY HDR ENGINEERING, INC. (540) 278-2400 (ROANOKE, VIRGINIA) -----
 SUBSURFACE UTILITY BY, DATE ACCUMARK, 1/12/2022 -----

INDEX OF SHEETS

REVISED	STATE	STATE		SHEET NO.
		ROUTE	PROJECT	
	VA.	77	0077-010-834, C501	IB

DESIGN FEATURES RELATING TO CONSTRUCTION
 OR TO REGULATION AND CONTROL OF TRAFFIC
 MAY BE SUBJECT TO CHANGE AS DEEMED
 NECESSARY BY THE DEPARTMENT

SHEET NO.	DESCRIPTION	STATIONS
1	TITLE SHEET	
1A	LOCATION MAP	
1B	INDEX OF SHEETS	
1E(1) - 1E(2)	SURVEY CONTROL DATA	
1F	CONSTRUCTION ALIGNMENT DATA SHEET	
2	GENERAL NOTES	
2A	TYPICAL SECTIONS	
3, 3A	PLAN AND PROFILE SHEET	Sta. 1232+00 to 1243+00
4, 4A	PLAN AND PROFILE SHEET	Sta. 1243+00 to 1257+00
5, 5A	PLAN AND PROFILE SHEET	Sta. 1257+00 to 1263+00

BRIDGE PLANS, B-644, PLAN NO. ---- (5 SHEETS)

RFP PLANS
 For Information
 Only
 DATE:

PROJECT	SHEET NO.
0077-010-834	IB

PROJECT MANAGER: ROBERT C. LEONARD, P.E. (276) 696-3258 (BRISTOL DISTRICT)
SURVEYED BY, DATE: LES. BYRNSIDE, L.S. (804) 330-3781 (H&B SURVEYING AND MAPPING, LLC.) 1/10/2022
DESIGN BY: HDR ENGINEERING, INC. (540) 278-2400 (ROANOKE, VIRGINIA) -----
SUBSURFACE UTILITY BY, DATE: ACCUMARK, 1/12/2022 -----

SURVEY CONTROL DATA

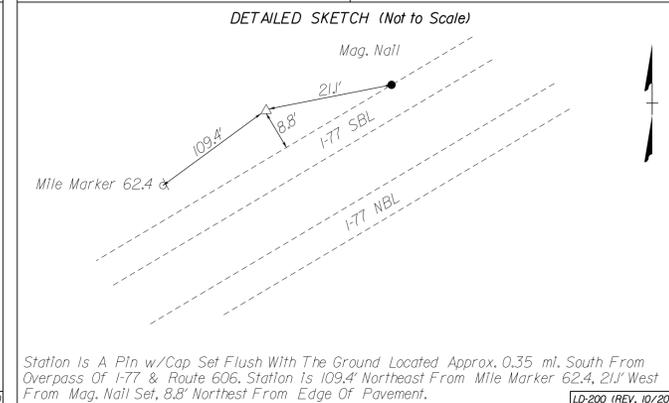
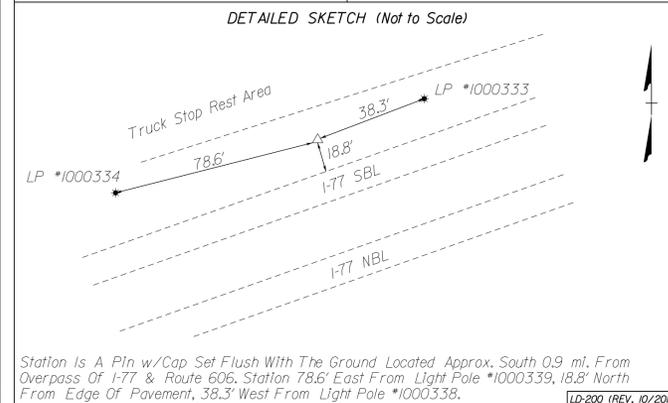
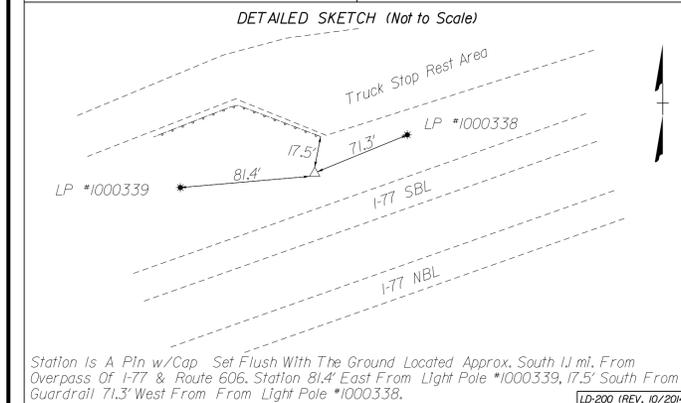
REVISED	STATE	STATE		SHEET NO.
	ROUTE	PROJECT		
	VA.	77	0077-010-834.C501	1E(1)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

LD-200 (REV. 10/2014) Virginia Department of Transportation Horizontal Control Control Station I.D. : <u>976</u> Date : 03-13-20	
VDOT Project Coordinates (2014) East (X) : 10,725,985.451 ft. North (Y) : 3,609,343.802 ft. Elevation : 2,174.85 ft.	VA State Plane Coordinates : NAD 83 - U.S. Survey Feet East (X) : 10724403.269 ft. North (Y) : 3608811.390 ft. Ortho. Elevation (H) : 2174.85 ft. Zone : North - South X (place an 'X' beside one)
Project Specific Combined Scale Factor : 1.000147531 (9 Decimal Places)	Project Information Project Number : <u>UPC 99569</u> Route : <u>ZZ</u> City/County : <u>Blair</u> Established By : <u>Woodport</u>
Latitude : <u>37° 12' 19.4737"</u> N (5 Decimal Places) Longitude : <u>81° 06' 17.44114"</u> W (5 Decimal Places) Geoid Separation (N) : <u>101.41</u> Ellipsoid Height (H) : <u>2073.44</u> Horizontal Datum : <u>NAD83</u> Year : <u>2011</u> Vertical Datum : <u>NAVD88</u> Geoid : <u>12B</u> Azimuth to Station : <u>97.7</u> Is <u>54° 04' 04"</u> Control Based On: CORS Stations DOBS: KYTLNCSRWWATWVLRWVOH	To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula : * Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left) * Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

LD-200 (REV. 10/2014) Virginia Department of Transportation Horizontal Control Control Station I.D. : <u>977</u> Date : 03-13-20	
VDOT Project Coordinates (2014) East (X) : 10,726,437.963 ft. North (Y) : 3,609,671.765 ft. Elevation : 2,169.56 ft.	VA State Plane Coordinates : NAD 83 - U.S. Survey Feet East (X) : 10724855.714 ft. North (Y) : 3609139.305 ft. Ortho. Elevation (H) : 2169.56 ft. Zone : North - South X (place an 'X' beside one)
Project Specific Combined Scale Factor : 1.000147531 (9 Decimal Places)	Project Information Project Number : <u>UPC 99569</u> Route : <u>ZZ</u> City/County : <u>Blair</u> Established By : <u>Woodport</u>
Latitude : <u>37° 12' 22.83815"</u> N (5 Decimal Places) Longitude : <u>81° 06' 11.96220"</u> W (5 Decimal Places) Geoid Separation (N) : <u>101.42</u> Ellipsoid Height (H) : <u>2068.14</u> Horizontal Datum : <u>NAD83</u> Year : <u>2011</u> Vertical Datum : <u>NAVD88</u> Geoid : <u>12B</u> Azimuth to Station : <u>97.6</u> Is <u>234° 04' 04"</u> Control Based On: CORS Stations DOBS: KYTLNCSRWWATWVLRWVOH	To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula : * Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left) * Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

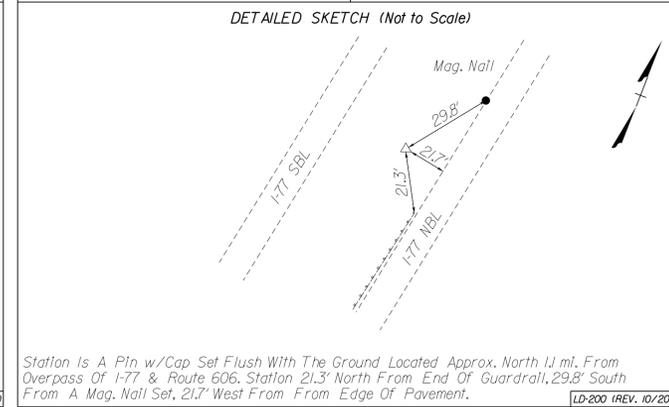
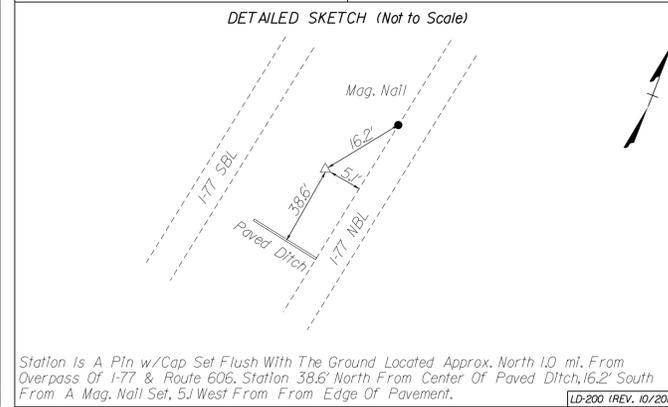
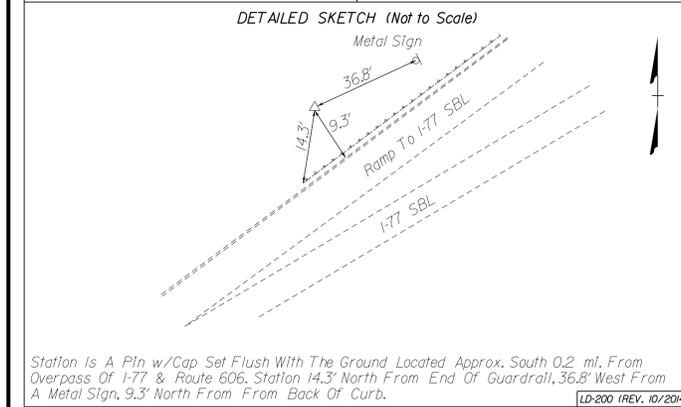
LD-200 (REV. 10/2014) Virginia Department of Transportation Horizontal Control Control Station I.D. : <u>978</u> Date : 03-13-20	
VDOT Project Coordinates (2014) East (X) : 10,728,705.094 ft. North (Y) : 3,611,461.408 ft. Elevation : 2,129.55 ft.	VA State Plane Coordinates : NAD 83 - U.S. Survey Feet East (X) : 10727122.511 ft. North (Y) : 3610928.684 ft. Ortho. Elevation (H) : 2129.55 ft. Zone : North - South X (place an 'X' beside one)
Project Specific Combined Scale Factor : 1.000147531 (9 Decimal Places)	Project Information Project Number : <u>UPC 99569</u> Route : <u>ZZ</u> City/County : <u>Blair</u> Established By : <u>Woodport</u>
Latitude : <u>37° 12' 41.4115"</u> N (5 Decimal Places) Longitude : <u>81° 05' 44.55988"</u> W (5 Decimal Places) Geoid Separation (N) : <u>101.45</u> Ellipsoid Height (H) : <u>2028.18</u> Horizontal Datum : <u>NAD83</u> Year : <u>2011</u> Vertical Datum : <u>NAVD88</u> Geoid : <u>12B</u> Azimuth to Station : <u>97.9</u> Is <u>38° 55' 39"</u> Control Based On: CORS Stations DOBS: KYTLNCSRWWATWVLRWVOH	To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula : * Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left) * Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet



LD-200 (REV. 10/2014) Virginia Department of Transportation Horizontal Control Control Station I.D. : <u>979</u> Date : 03-13-20	
VDOT Project Coordinates (2014) East (X) : 10,729,107.338 ft. North (Y) : 3,611,959.424 ft. Elevation : 2,116.99 ft.	VA State Plane Coordinates : NAD 83 - U.S. Survey Feet East (X) : 10727524.696 ft. North (Y) : 3611426.627 ft. Ortho. Elevation (H) : 2116.99 ft. Zone : North - South X (place an 'X' beside one)
Project Specific Combined Scale Factor : 1.000147531 (9 Decimal Places)	Project Information Project Number : <u>UPC 99569</u> Route : <u>ZZ</u> City/County : <u>Blair</u> Established By : <u>Woodport</u>
Latitude : <u>37° 12' 46.17203"</u> N (5 Decimal Places) Longitude : <u>81° 05' 39.75897"</u> W (5 Decimal Places) Geoid Separation (N) : <u>101.45</u> Ellipsoid Height (H) : <u>2016.54</u> Horizontal Datum : <u>NAD83</u> Year : <u>2011</u> Vertical Datum : <u>NAVD88</u> Geoid : <u>12B</u> Azimuth to Station : <u>97.8</u> Is <u>218° 55' 39"</u> Control Based On: CORS Stations DOBS: KYTLNCSRWWATWVLRWVOH	To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula : * Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left) * Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

LD-200 (REV. 10/2014) Virginia Department of Transportation Horizontal Control Control Station I.D. : <u>980</u> Date : 03-13-20	
VDOT Project Coordinates (2014) East (X) : 10,729,063.244 ft. North (Y) : 3,618,513.157 ft. Elevation : 2,056.96 ft.	VA State Plane Coordinates : NAD 83 - U.S. Survey Feet East (X) : 10727480.608 ft. North (Y) : 3617979.393 ft. Ortho. Elevation (H) : 2056.96 ft. Zone : North - South X (place an 'X' beside one)
Project Specific Combined Scale Factor : 1.000147531 (9 Decimal Places)	Project Information Project Number : <u>UPC 99569</u> Route : <u>ZZ</u> City/County : <u>Blair</u> Established By : <u>Woodport</u>
Latitude : <u>37° 13' 50.92640"</u> N (5 Decimal Places) Longitude : <u>81° 05' 42.53045"</u> W (5 Decimal Places) Geoid Separation (N) : <u>101.49</u> Ellipsoid Height (H) : <u>1955.47</u> Horizontal Datum : <u>NAD83</u> Year : <u>2011</u> Vertical Datum : <u>NAVD88</u> Geoid : <u>12B</u> Azimuth to Station : <u>98.1</u> Is <u>349° 14' 51"</u> Control Based On: CORS Stations DOBS: KYTLNCSRWWATWVLRWVOH	To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula : * Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left) * Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

LD-200 (REV. 10/2014) Virginia Department of Transportation Horizontal Control Control Station I.D. : <u>981</u> Date : 03-13-20	
VDOT Project Coordinates (2014) East (X) : 10,728,977.497 ft. North (Y) : 3,618,964.694 ft. Elevation : 2,052.72 ft.	VA State Plane Coordinates : NAD 83 - U.S. Survey Feet East (X) : 10727394.874 ft. North (Y) : 3618430.863 ft. Ortho. Elevation (H) : 2052.72 ft. Zone : North - South X (place an 'X' beside one)
Project Specific Combined Scale Factor : 1.000147531 (9 Decimal Places)	Project Information Project Number : <u>UPC 99569</u> Route : <u>ZZ</u> City/County : <u>Blair</u> Established By : <u>Woodport</u>
Latitude : <u>37° 13' 55.36534"</u> N (5 Decimal Places) Longitude : <u>81° 05' 43.74367"</u> W (5 Decimal Places) Geoid Separation (N) : <u>101.49</u> Ellipsoid Height (H) : <u>1951.23</u> Horizontal Datum : <u>NAD83</u> Year : <u>2011</u> Vertical Datum : <u>NAVD88</u> Geoid : <u>12B</u> Azimuth to Station : <u>98.0</u> Is <u>169° 14' 51"</u> Control Based On: CORS Stations DOBS: KYTLNCSRWWATWVLRWVOH	To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula : * Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left) * Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet



RFP PLANS
For Information
Only
DATE:

PROJECT 0077-010-834	SHEET NO. 1E(1)
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PROJECT MANAGER: ROBERT C. LEONARD, P.E. (276) 696-3258 (BRISTOL DISTRICT)
SURVEYED BY, DATE: LES. BYRNSIDE, L.S. (804) 330-3781 (H&B SURVEYING AND MAPPING, LLC.) 1/10/2022
DESIGN BY: HDR ENGINEERING, INC. (540) 278-2400 (ROANOKE, VIRGINIA) -----
SUBSURFACE UTILITY BY, DATE: ACCUMARK, 1/12/2022 -----

SURVEY CONTROL DATA

REVISED	STATE	STATE		SHEET NO.
	ROUTE	PROJECT		
	VA.	77	0077-010-834, C501	1E(2)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

VDOT Project Coordinates : NAD 83 - U.S. Survey Feet - Traverse #1

Point ID	Bearing & Distance	Northing	Easting	Elevation	Description
978	N 38° 55' 39" E 640.17'	3,611,461.408	10,728,705.094	2,129.55	Mon.
979	N 15° 36' 18" E 494.09'	3,611,959.424	10,729,107.338	2,116.99	Mon.
1	N 21° 06' 20" E 498.39'	3,612,435.298	10,729,240.248	2,095.06	Rod & Cap
2	N 66° 15' 07" E 514.68'	3,612,900.256	10,729,419.712	2,083.30	Rod & Cap
3	N 79° 06' 30" E 387.98'	3,613,107.527	10,729,890.814	2,079.63	Rod & Cap
4	N 28° 11' 22" W 386.95'	3,613,180.837	10,730,271.808	2,076.17	Rod & Cap
5	N 28° 49' 50" W 358.45'	3,613,521.888	10,730,089.020	2,085.07	Rod & Cap
6	N 7° 38' 39" W 402.52'	3,613,835.904	10,729,916.170	2,094.59	Rod & Cap
7	N 9° 19' 25" W 393.04'	3,614,234.844	10,729,862.626	2,089.78	Rod & Cap
8	N 11° 24' 55" W 434.69'	3,614,622.687	10,729,798.951	2,085.60	Rod & Cap
9	N 10° 07' 03" W 440.61'	3,615,048.778	10,729,712.918	2,082.54	Rod & Cap
10	N 9° 55' 25" W 484.78'	3,615,482.540	10,729,635.517	2,079.22	Rod & Cap
11	N 9° 12' 54" W 464.25'	3,615,960.062	10,729,551.973	2,075.85	Rod & Cap
12	N 9° 53' 50" W 542.95'	3,616,418.324	10,729,477.628	2,072.14	Rod & Cap
13	N 9° 12' 55" W 503.84'	3,616,953.196	10,729,384.306	2,068.75	Rod & Cap
14	N 10° 29' 49" W 513.08'	3,617,450.533	10,729,303.618	2,064.54	Rod & Cap
15	N 14° 44' 45" W 577.14'	3,617,955.024	10,729,210.144	2,060.96	Rod & Cap
980	N 10° 45' 09" W 459.61'	3,618,513.157	10,729,063.244	2,056.96	Mon.
981		3,618,964.694	10,728,977.497	2,052.72	Mon.

Survey Traverse Results:
Closure Precision 1:67,183

VDOT Project Coordinates : NAD 83 - U.S. Survey Feet - Traverse #2

Point ID	Bearing & Distance	Northing	Easting	Elevation	Description
4	S 12° 12' 54" W 375.59'	3,613,180.837	10,730,271.808	2,076.17	Rod & Cap
20	S 27° 48' 28" W 340.62'	3,612,813.754	10,730,192.342	2,084.09	Rod & Cap
21	S 44° 10' 27" W 387.76'	3,612,512.473	10,730,033.441	2,100.12	Rod & Cap
22	S 30° 36' 35" W 384.59'	3,612,234.363	10,729,763.235	2,115.39	Rod & Cap
23	S 45° 07' 54" W 402.30'	3,611,903.360	10,729,567.405	2,119.72	Rod & Cap
24	S 52° 02' 05" W 387.98'	3,611,619.546	10,729,282.284	2,125.37	Rod & Cap
25	S 63° 58' 17" W 418.67'	3,611,380.870	10,728,976.410	2,129.43	Rod & Cap
26	N 21° 38' 59" E 284.32'	3,611,197.147	10,730,089.020	2,085.07	Rod & Cap
978		3,611,461.408	10,728,705.094	2,129.55	Mon.

Survey Traverse Results:
Closure Precision 1:67,183

VDOT Project Coordinates : NAD 83 - U.S. Survey Feet - Traverse #3

Point ID	Bearing & Distance	Northing	Easting	Elevation	Description
976	N 54° 04' 01" E 558.86'	3,609,343.802	10,725,985.451	2,174.85	Mon.
977	N 53° 10' 55" E 404.63'	3,609,671.765	10,726,437.963	2,169.56	Mon.
40	N 51° 05' 43" E 423.13'	3,609,914.247	10,726,761.883	2,166.18	Rod & Cap
41	N 52° 13' 59" E 517.01'	3,610,179.984	10,727,091.160	2,161.83	Rod & Cap
42	N 52° 38' 53" E 525.48'	3,610,496.625	10,727,499.859	2,153.38	Rod & Cap
43	N 51° 52' 38" E 476.03'	3,610,815.442	10,727,917.577	2,145.55	Rod & Cap
44	N 51° 52' 38" E 476.03'	3,611,109.315	10,728,292.062	2,137.90	Rod & Cap
26		3,611,197.147	10,730,089.020	2,085.07	Rod & Cap

Survey Traverse Results:
Closure Precision 1:67,183

VDOT Project Coordinates : NAD 83 - U.S. Survey Feet - Traverse #4

Point ID	Bearing & Distance	Northing	Easting	Elevation	Description
22	N 21° 35' 21" E 412.47'	3,612,234.363	10,729,763.235	2,115.39	Rod & Cap
30	N 9° 54' 53" E 394.89'	3,612,617.895	10,729,915.002	2,108.25	Rod & Cap
31	N 00° 23' 37" W 412.21'	3,613,006.886	10,729,982.995	2,105.23	Mag Nail
32	N 8° 43' 42" W 421.70'	3,613,419.086	10,729,980.164	2,100.06	Mag Nail
6		3,613,835.904	10,729,916.170	2,094.59	Rod & Cap

Survey Traverse Results:
Closure Precision 1:67,183

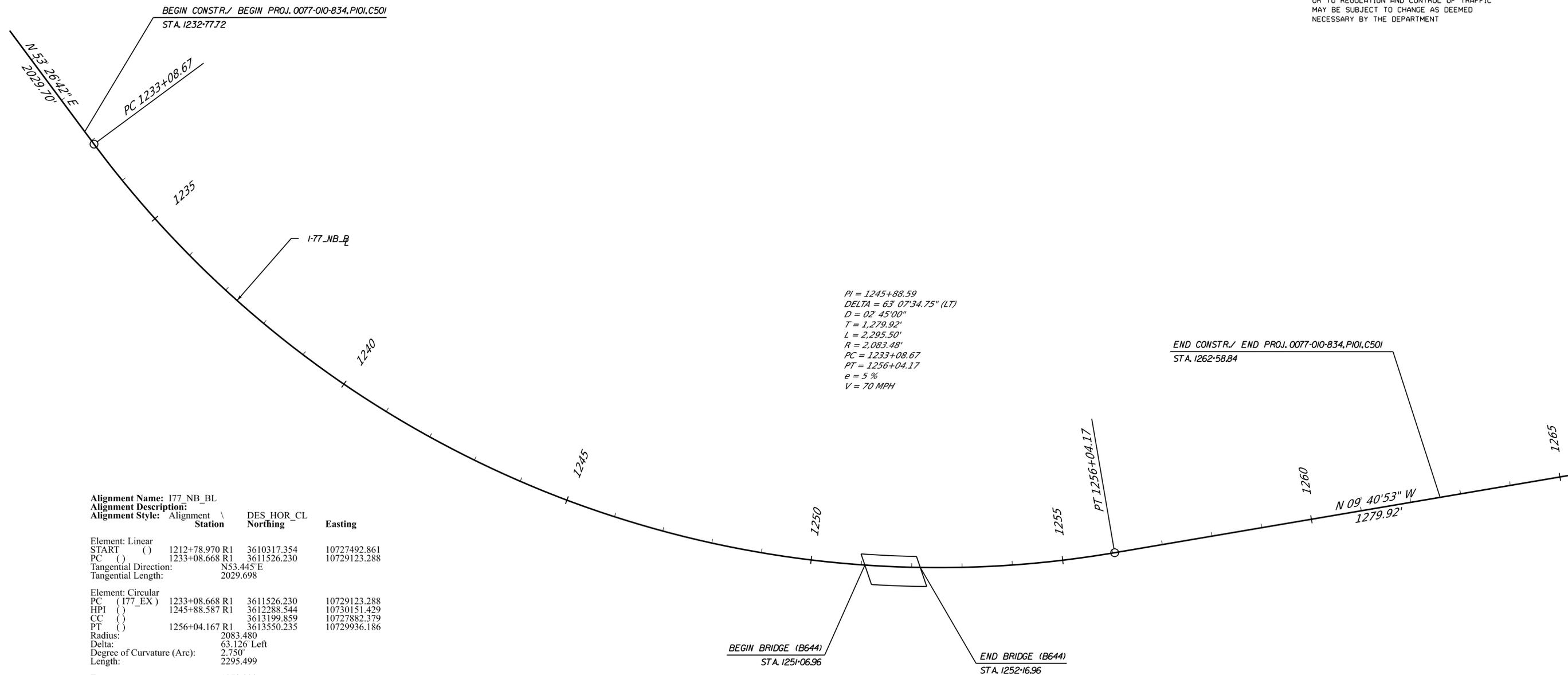
RFP PLANS
For Information
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DATE:

PROJECT MANAGER: ROBERT C. LEONARD, P.E. (276) 696-3258 (BRISTOL DISTRICT)
 SURVEYED BY, DATE: LES. BYRNSIDE, L.S. (804) 330-3781 (H&B SURVEYING AND MAPPING, LLC.), 1/10/2022
 DESIGN BY: HDR ENGINEERING, INC. (540) 278-2400 (ROANOKE, VIRGINIA) -----
 SUBSURFACE UTILITY BY, DATE: ACCUMARK, 1/12/2022 -----

CONSTRUCTION ALIGNMENT DATA

REVISED	STATE	STATE		SHEET NO.
	ROUTE	PROJECT		
	VA.	77	0077-010-834, C501	IF

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



Alignment Name: I77_NB_BL
Alignment Description:
Alignment Style: Alignment \ DES_HOR_CL

Station	Northing	Easting
Element: Linear		
START ()	1212+78.970 R1	3610317.354
PC ()	1233+08.668 R1	3611526.230
Tangential Direction:	N53.445° E	
Tangential Length:	2029.698	
Element: Circular		
PC (I77_EX)	1233+08.668 R1	3611526.230
HPI ()	1245+88.587 R1	3612288.544
CC ()		3613199.859
PT ()	1256+04.167 R1	3613550.235
Radius:	2083.480	
Delta:	63.126° Left	
Degree of Curvature (Arc):	2.750°	
Length:	2295.499	
Tangent:	1279.920	
Chord:	2181.146	
Middle Ordinate:	308.222	
External:	361.736	
Back Tangent Direction:	N53.445° E	
Back Radial Direction:	S36.555° E	
Chord Direction:	N21.882° E	
Ahead Radial Direction:	N80.319° E	
Ahead Tangent Direction:	N9.681° W	
Element: Linear		
PT ()	1256+04.167 R1	3613550.235
END ()	1268+84.087 R1	3614811.926
Tangential Direction:	N9.681° W	
Tangential Length:	1279.920	

PI = 1245+88.59
 DELTA = 63° 07' 34.75" (LT)
 D = 02° 45' 00"
 T = 1,279.92'
 L = 2,295.50'
 R = 2,083.48'
 PC = 1233+08.67
 PT = 1256+04.17
 e = 5 %
 V = 70 MPH

BEGIN BRIDGE (B644) STA. 1251+06.96
 END BRIDGE (B644) STA. 1252+16.96

END CONSTR./ END PROJ. 0077-010-834, P101, C501
 STA. 1262+58.84

RFP PLANS
 For Information
 Only
 DATE: _____

SCALE 0 100' 200'	PROJECT 0077-010-834	SHEET NO. IF
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PROJECT MANAGER: ROBERT C. LEONARD, P.E. (276) 696-3258 (BRISTOL DISTRICT)
SURVEYED BY, DATE: LES. BYRNSIDE, L.S. (804) 330-3781 (H&B SURVEYING AND MAPPING, LLC.), 1/10/2022
DESIGN BY: HDR ENGINEERING, INC. (540) 278-2400 (ROANOKE, VIRGINIA) -----
SUBSURFACE UTILITY BY, DATE: ACCUMARK, 1/12/2022 -----

GENERAL NOTES

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	77	0077-010-834, C501	

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

DRAINAGE

- D-1 The horizontal location of all drainage structures shown on these plans is approximate only, with the exception of structures showing specific stations, special design bridges and storm sewer systems.
- D-2 The horizontal location and invert elevations shown for proposed culverts and storm sewer outfall pipes are based on existing survey data and required design criteria. If during construction, it is found that the horizontal location or invert elevations shown on the plans differ significantly from the horizontal location or elevations of the stream or swale in which the culvert or storm sewer outfall pipe is to be placed, the Engineer shall confer with, and get approval from, the applicable District Drainage Engineer before installing the culvert or storm sewer outfall pipe.
- D-3 The "H" dimensions shown on plans for drop inlets and junction boxes and the "L.F." dimensions shown for manholes are for estimating purposes and are based on the proposed invert elevations shown for the structure and the anticipated top (rim) elevation based on existing or proposed finished grade. The actual "H" or "L.F." dimensions are to be determined by the contractor from field conditions.
- D-8 Where open joint pipe is to be used, no joint shall be opened a distance exceeding 25% of the spigot length. Sealing of the pipe joint shall be in accordance with Section 302 of the applicable VDOT Road and Bridge Specifications.

GRADING

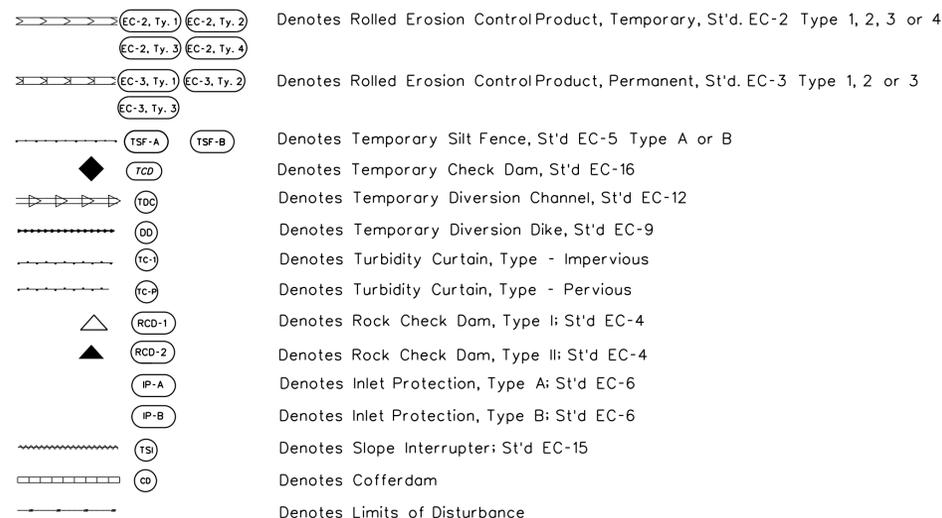
- G-1 The grade line denotes top of finished pavement unless shown otherwise on typical sections or plans.
- G-2 Earthwork quantities on this project are based on anticipated settlement and may require adjusting during construction.
- G-6 The borrow material for this project shall be a minimum CBR _____ or as approved by the Materials Engineer.

PAVEMENT

- P-2 The pavement materials on this project will be paid for on a tonnage basis. The weight will vary in accordance with the specific gravity of the aggregates and the asphaltic content of the mix actually used to secure the design depth. The weight of the asphalt concrete is based on 95% of the theoretical maximum density.

EROSION AND SEDIMENT CONTROL (ESC)

- E-1 If the removal of Brush Silt Barrier is specified by the plans or required by the Engineer, the cost of removal and disposal of brush shall be in accordance with Section 109 of the applicable VDOT Road and Bridge Specifications.
- E-2 Rock for Check Dams, Inlet Protection, Erosion Control Stone and Riprap shall be in accordance with Section 203 and Section 414 of the applicable VDOT Road and Bridge Specifications.
- E-3 The following symbols are used to depict Erosion and Sediment Control items in the plan assembly:



- E-4 Permanent vegetation shall be established on all denuded areas not otherwise stabilized with non-erodible materials. See the Roadside Development sheet for details on permanent vegetation establishment.

INCIDENTALS

- I-19 The following outside sources, under contract with VDOT, have provided information on this project.

Hydraulic Design	-	HDR Engineering, Inc.
Roadway Design	-	HDR Engineering, Inc.
Utility Design	-	" " " "
Utility Designation	-	" " " "
Utility Location	-	" " " "
Survey	-	H&B Surveying and Mapping, LLC.
Bridge Design	-	HDR Engineering, Inc.
Traffic Design	-	" " " "
Landscape Design	-	" " " "

If questions or problems arise during construction, please contact the Area Construction Engineer. **DO NOT CONTACT THE OUTSIDE SOURCES.**

- I-20 The Official Electronic PDF Version of the plans will override the paper copies or prints of specific layers.

Portions of this plan assembly have been CADD generated. To assist in the preparation of the bid and construction of the project, Microstation format (.dgn) files will be made available to the prime contractor during bids and after award of the contract.

- I-21 All electronic plan assemblies will include the construction plans in two formats: PDF files and MicroStation format (.dgn) files. Only the PDF files will be considered as part of the official plan assembly.

The MicroStation format (.dgn) files are furnished only as information for the contractor. These plans are developed in layers (levels) to aid in readability. (See the VDOT CADD Manual for CADD Level Structure). However, the construction items may or may not be in the proper layering scheme as described in the VDOT CADD Manual. The Microstation files will only match the scanned files if all required levels are turned on. A Microstation Software license is required to be able to read these files.

RFP PLANS
For Information
Only
DATE:

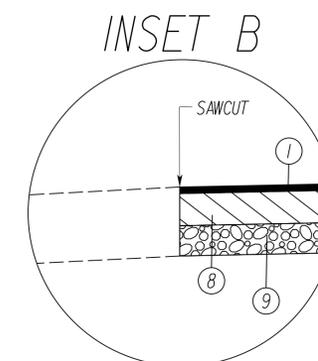
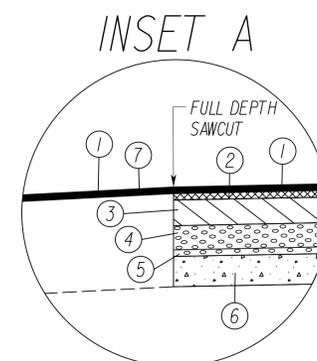
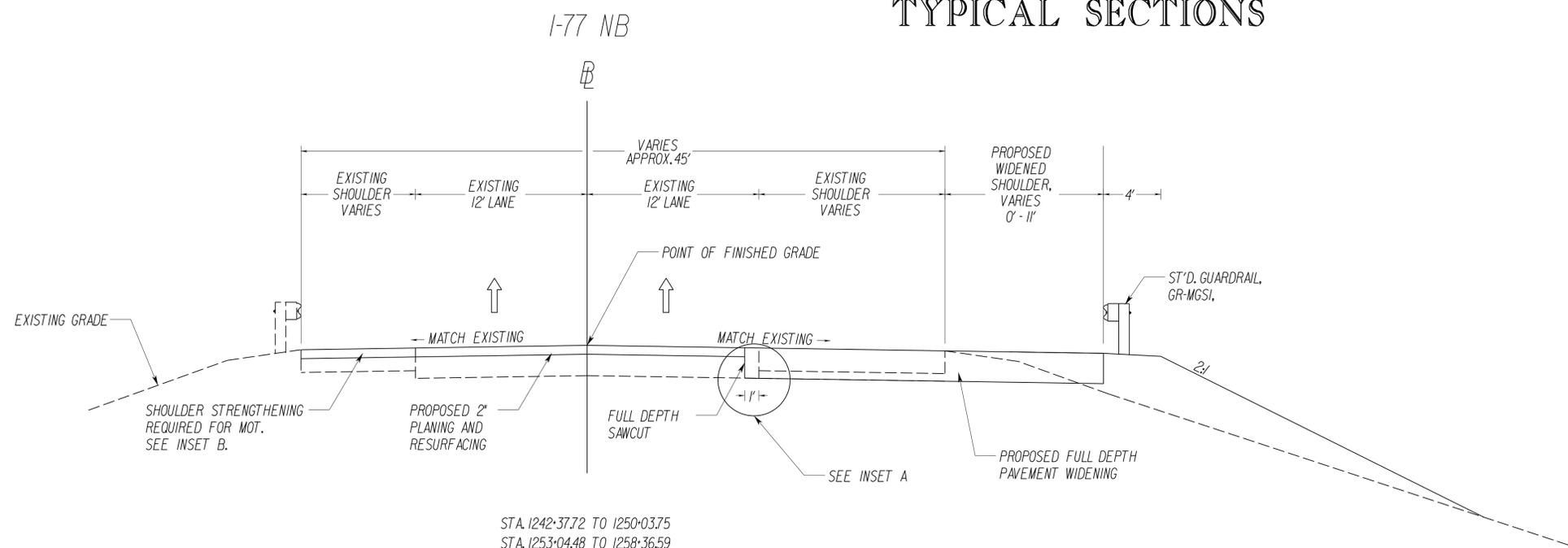
NOT TO SCALE	PROJECT 0077-010-834	SHEET NO. 2
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PROJECT MANAGER: ROBERT C. LEONARD, P.E. (276) 696-3258 (BRISTOL DISTRICT)
SURVEYED BY, DATE: LES. BYRNSIDE, L.S. (804) 330-3781 (H&B SURVEYING AND MAPPING, LLC.) 1/10/2022
DESIGN BY: HDR ENGINEERING, INC. (540) 278-2400 (ROANOKE, VIRGINIA)
SUBSURFACE UTILITY BY, DATE: ACCUMARK, 1/12/2022

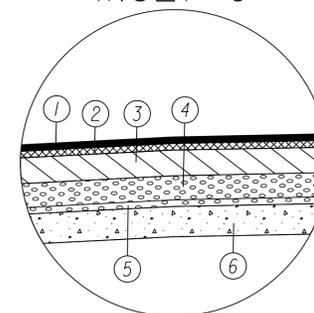
REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	77	0077-010-834.C501	2A

TYPICAL SECTIONS

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

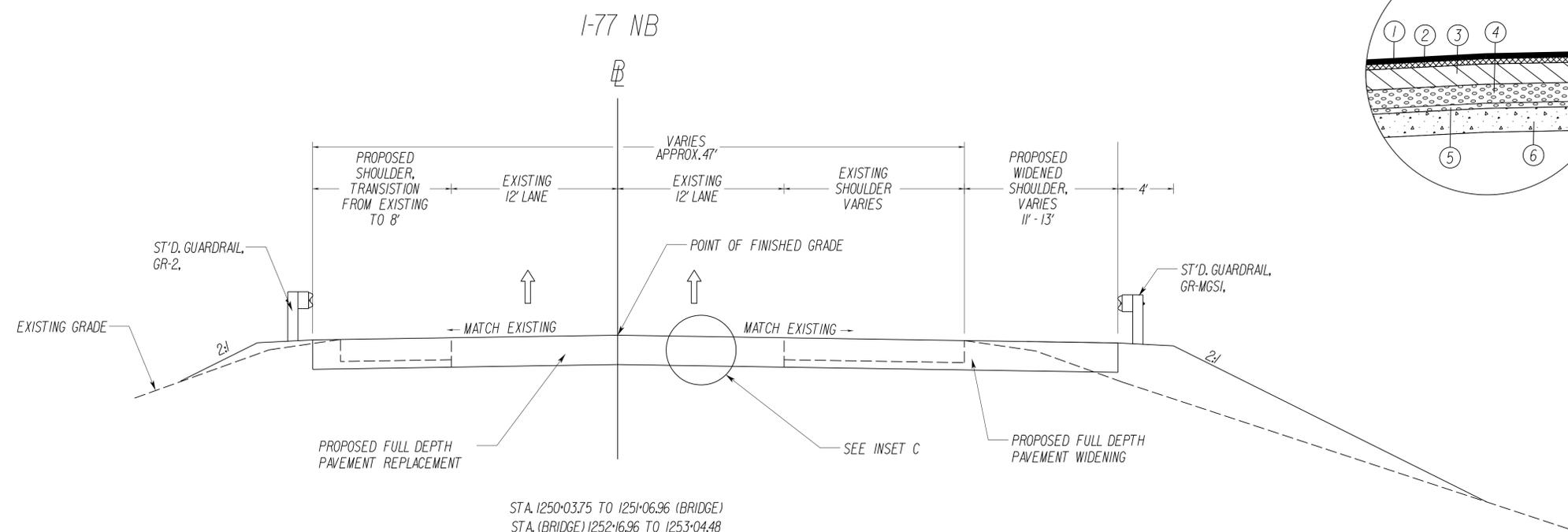


INSET C



LEGEND

- ① SURFACE - 2" ASPHALT CONCRETE SURFACE COURSE, TYPE SM-12.5E ESTIMATED AT 220 LB/YD'
- ② 2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE IM-19.0E ESTIMATED AT 230 LB/YD'
- ③ BASE - 10" ASPHALT CONCRETE, TYPE BM-25.0A
- ④ SUBBASE - 8" AGGREGATE BASE MATERIAL, TYPE 1, SIZE 21B, EXTENDED TO THE FACE OF THE STANDARD UD-4 EDGEDRAIN OR DAYLIGHT
- ⑤ SUBBASE - 2" AGGREGATE BASE MATERIAL, TYPE 1, SIZE 21B - LEVELING COURSE, EXTENDED TO THE FACE OF THE STANDARD UD-4 EDGEDRAIN OR DAYLIGHT
- ⑥ SUBBASE - 12" OPEN GRADED AGGREGATE MATERIAL, TYPE 1, EXTENDED TO THE FACE OF THE STANDARD UD-4 EDGEDRAIN OR DAYLIGHT
- ⑦ 2" FLEXIBLE PAVEMENT PLANING
- ⑧ BASE - 9" ASPHALT CONCRETE, TYPE BM-25.0A (PLACED IN 4-1/2" LIFTS)
- ⑨ EXISTING AGGREGATE BASE BELOW 11"



NOTES:

1. PAVEMENT WIDENING SHALL BE IN ACCORDANCE WITH VDOT STANDARD WP-2 OR PROVIDED PAVEMENT SECTION, WHICHEVER IS GREATER.
2. IF UD-4 IS ENCOUNTERED DURING FULL DEPTH SAWCUT OF EXISTING PAVEMENT, IT SHALL BE RELOCATED BELOW THE WIDENING FULL DEPTH PAVEMENT.
3. SURFACE COURSE FOR PLANING AND RESURFACING OF THE EXISTING PAVEMENT SHALL BE PLACED CONCURRENTLY.
4. EXISTING GUARDRAIL BEYOND LIMITS OF FIXED OBJECT ATTACHMENT TO REMAIN.
5. EXISTING PAVEMENT THICKNESS SHOWN FOR REFERENCE ONLY.

RFP PLANS
For Information
Only
DATE:

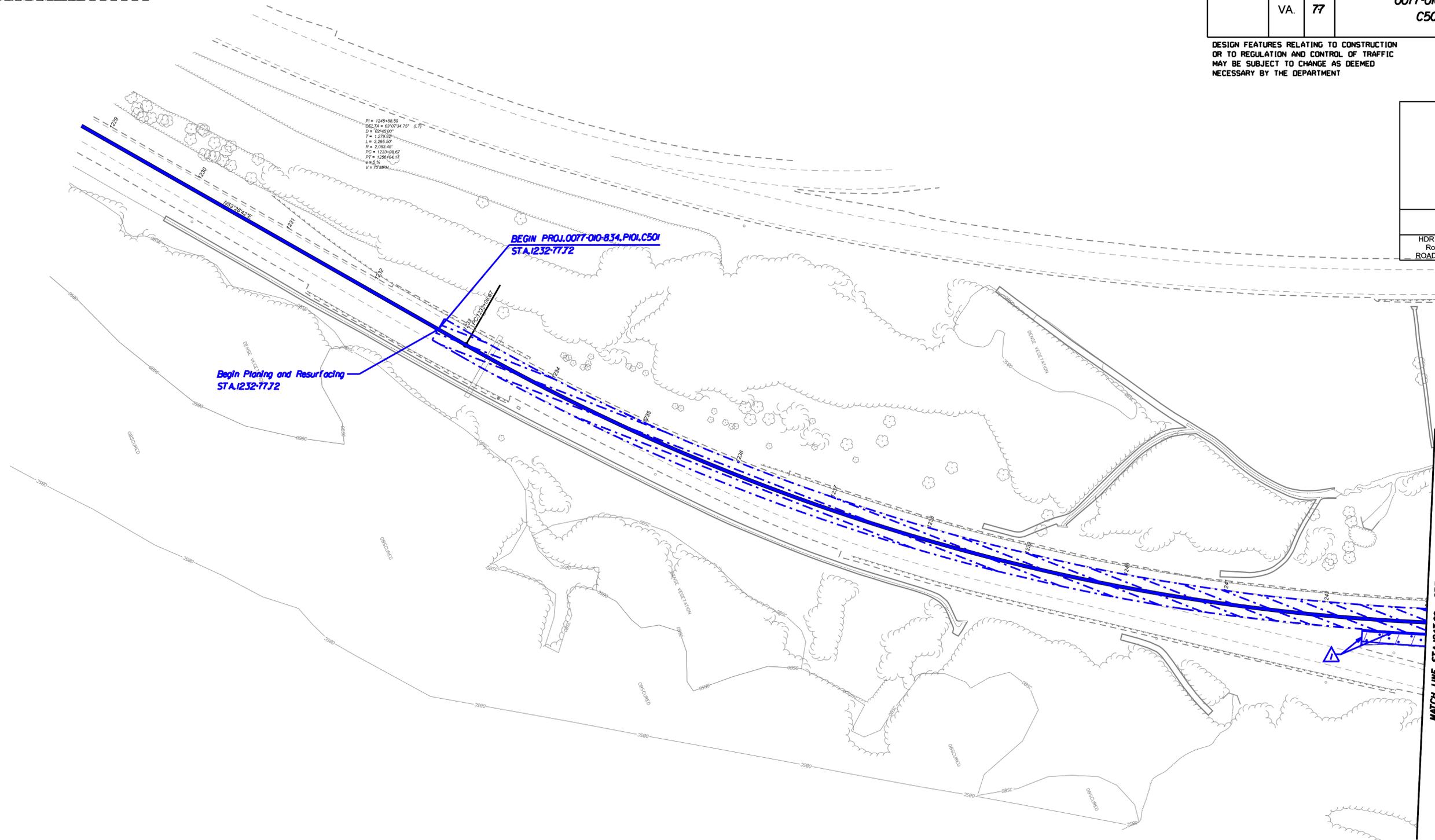
NOT TO SCALE	PROJECT 0077-010-834	SHEET NO. 2A
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PROJECT MANAGER ROBERT C. LEONARD, P.E. (276) 696-3258 (BRISTOL DISTRICT)
 SURVEYED BY, DATE LES. BYRNSIDE, L.S. (804) 330-3781 (H&B SURVEYING AND MAPPING, LLC.) 1/10/2022
 DESIGN BY HDR ENGINEERING, INC. (540) 278-2400 (ROANOKE, VIRGINIA) --
 SUBSURFACE UTILITY BY, DATE ACCUMARK, 1/12/2022

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	77	0077-010-834 C501, P101	3

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

HDR Engineering, Inc.
 Roanoke, Virginia
 ROADWAY ENGINEER



Begin Planing and Resurfacing
 STA. 1232+77.72

BEGIN PROJ. 0077-010-834, P101, C501
 STA. 1232+77.72

MATCH LINE STA. 1242+00 SEE SHEET 4

- 1 Saw Cut Full Depth Req'd.
- 2 Sr'd. GR-MGS1 Req'd.
- 3 Sr'd. GR-MGS2 Req'd.
- 4 Tie to existing guardrail
- 5 Sr'd. GR-FOA-2, Type I Req'd.
- 6 Sr'd. GR-FOA-2, Type II Req'd.
- 7 Sr'd. GR-2 Req'd.
- 8 Sr'd. GR-MGS4 Req'd.
- 9 Sr'd. GR-9 Req'd.

- DENOTES TEMPORARY PAVEMENT
- DENOTES PLANING AND RESURFACING
- DENOTES DEMOLITION OF PAVEMENT
- DENOTES PROPOSED ASPHALT

- Denotes Construction Limits in Cuts
- Denotes Construction Limits in Fills

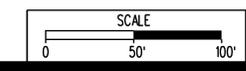
Note: Dot-dash-dashed lines denote Temporary Easements.
 Dot-dashed lines denote Permanent Easements.

REFERENCES
 (PROFILES, DETAIL & DRAINAGE
 DESCRIPTION SHEETS, ETC.)

Mainline Profile 3A



RFP PLANS
 For Information
 Only
 DATE:



PROJECT	SHEET NO.
0077-010-834	3

\$TIME\$TAMPS

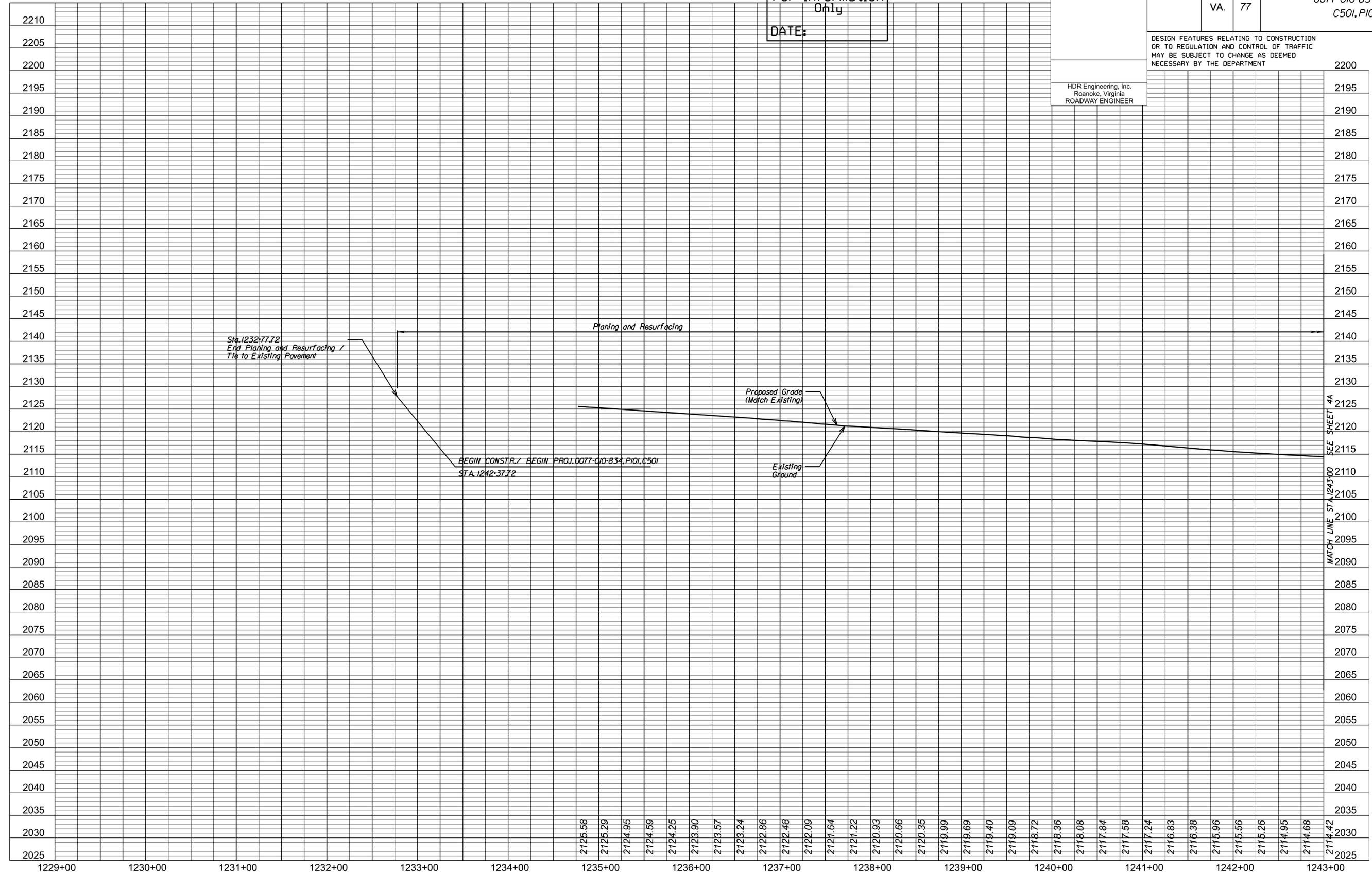
PROJECT MANAGER BOBERT C. LEONARD, P.E. (276) 696-3258 (BRISTOL DISTRICT)
SURVEYED BY, DATE LES. BYRNSIDE, L.S. (804) 330-3781 (H&B SURVEYING AND MAPPING, LLC), 1/10/2022
DESIGN BY HDR ENGINEERING, INC. (540) 278-2400 (ROANOKE, VIRGINIA) ----
SUBSURFACE UTILITY BY, DATE ACCUMARK, 1/12/2022

RFP PLANS
For Information
Only
DATE:

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	77	0077-010-834 C501, P10i	3A

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

HDR Engineering, Inc.
Roanoke, Virginia
ROADWAY ENGINEER



SEE SHEET 4A
MATCH LINE STA. 1243+00

1229+00	1230+00	1231+00	1232+00	1233+00	1234+00	1235+00	1236+00	1237+00	1238+00	1239+00	1240+00	1241+00	1242+00	1243+00
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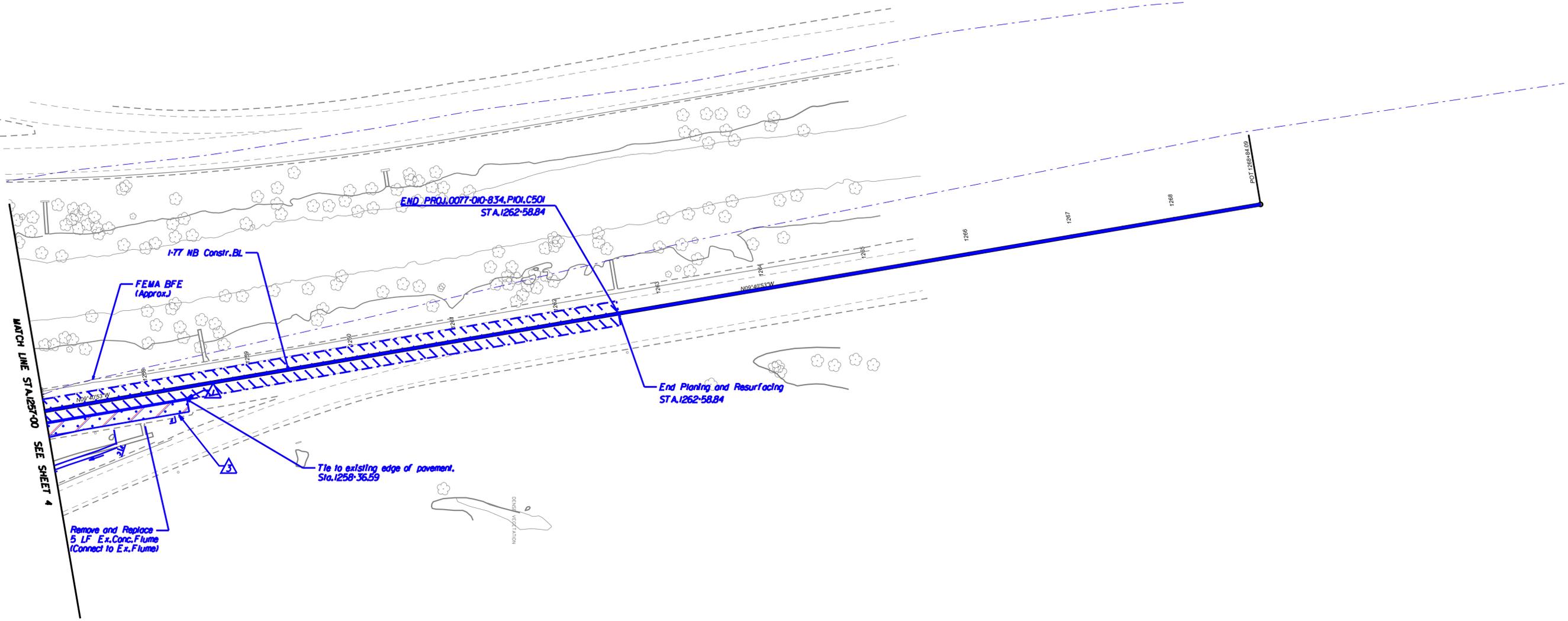
PROJECT
0077-010-834
SHEET NO.
3A

PROJECT MANAGER ROBERT C. LEONARD, P.E. (276) 696-3258 (BRISTOL DISTRICT)
 SURVEYED BY, DATE LES. BY/RSIDE L.S. (804) 330-3781 (H&B SURVEYING AND MAPPING, LLC.) 1/10/2022
 DESIGN BY HDR ENGINEERING, INC. (540) 278-2400 (ROANOKE, VIRGINIA) ---
 SUBSURFACE UTILITY BY, DATE ACCUMARK, 1/12/2022

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	77	0077-010-834, B644 C501, P101	5

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

HDR Engineering, Inc.
 Roanoke, Virginia
 ROADWAY ENGINEER



- 1 Saw Cut Full Depth Req'd.
- 2 Srd. GR-MGS1 Req'd.
- 3 Srd. GR-MGS2 Req'd.
- 4 Tile to existing guardrail
- 5 Srd. GR-FOA-2, Type I Req'd.
- 6 Srd. GR-FOA-2, Type II Req'd.
- 7 Srd. GR-2 Req'd.
- 8 Srd. GR-MGS4 Req'd.
- 9 Srd. GR-9 Req'd.

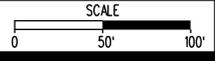
- DENOTES TEMPORARY PAVEMENT
- DENOTES PLANING AND RESURFACING
- DENOTES DEMOLITION OF PAVEMENT
- DENOTES PROPOSED ASPHALT

- Denotes Construction Limits in Cuts
- Denotes Construction Limits in Fills

Note: Dot-dot-dashed lines denote Temporary Easements.
 Dot-dashed lines denote Permanent Easements.

REFERENCES
 (PROFILES, DETAIL & DRAINAGE
 DESCRIPTION SHEETS, ETC.)

Mainline Profile 5A



PROJECT	SHEET NO.
0077-010-834	5

\$TIME\$TAMPS

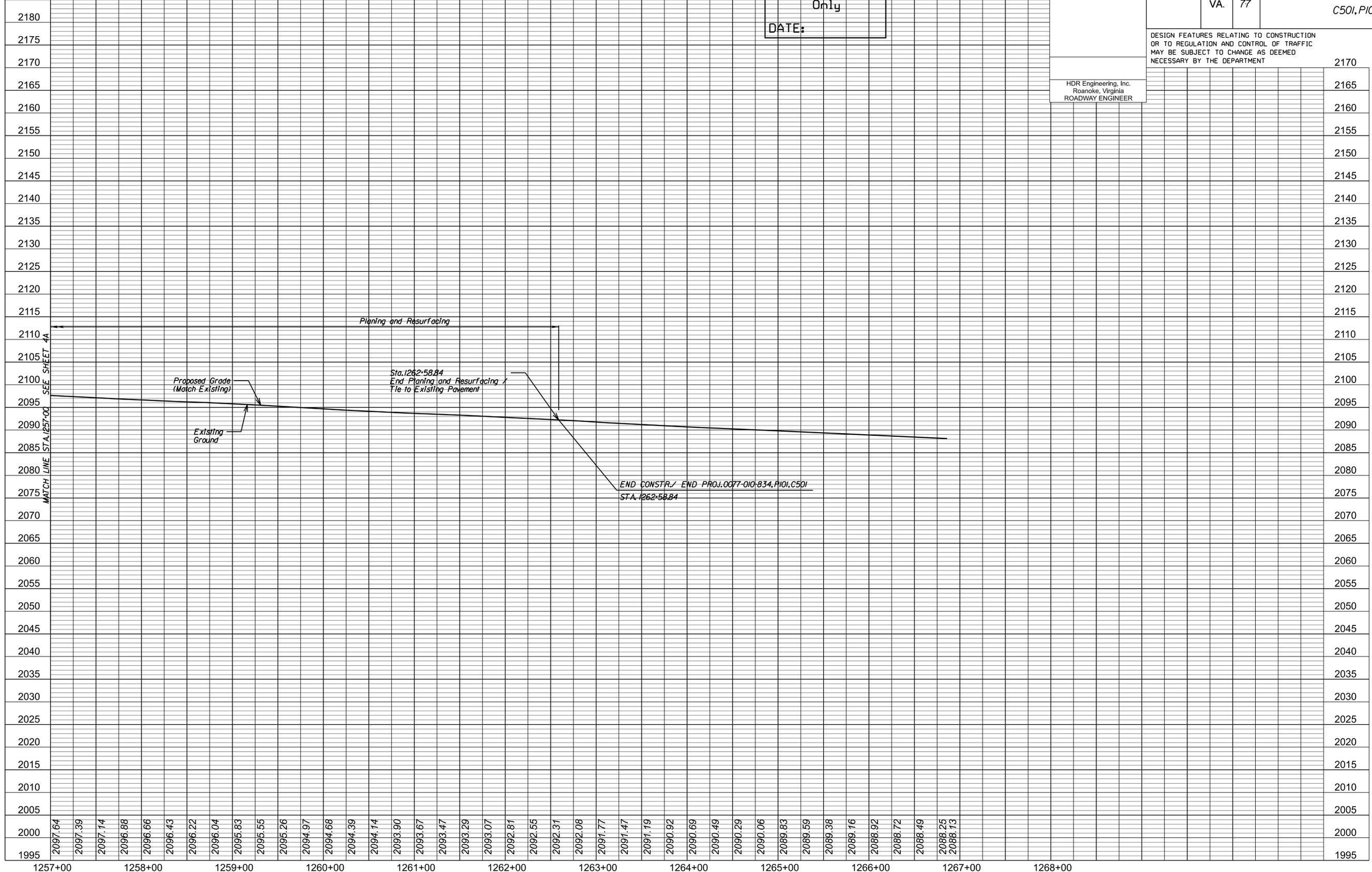
PROJECT MANAGER BOBERT C. LEONARD, P.E. (276) 696-3258 (BRISTOL DISTRICT)
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RFP PLANS
For Information
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REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	77		0077-010-834 C501, P101	5A

DESIGN FEATURES RELATING TO CONSTRUCTION
OR TO REGULATION AND CONTROL OF TRAFFIC
MAY BE SUBJECT TO CHANGE AS DEEMED
NECESSARY BY THE DEPARTMENT

HDR Engineering, Inc.
Roanoke, Virginia
ROADWAY ENGINEER



PROJECT
0077-010-834
SHEET NO.
5A

FOR INDEX OF SHEETS SEE SHEET 1B

THIS PROJECT WAS DEVELOPED UTILIZING THE DEPARTMENT'S ENGINEERING DESIGN PACKAGE (OpenRoads Designer). UPC_117110



COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE OF PROPOSED
STATE HIGHWAY
RFP PLANS

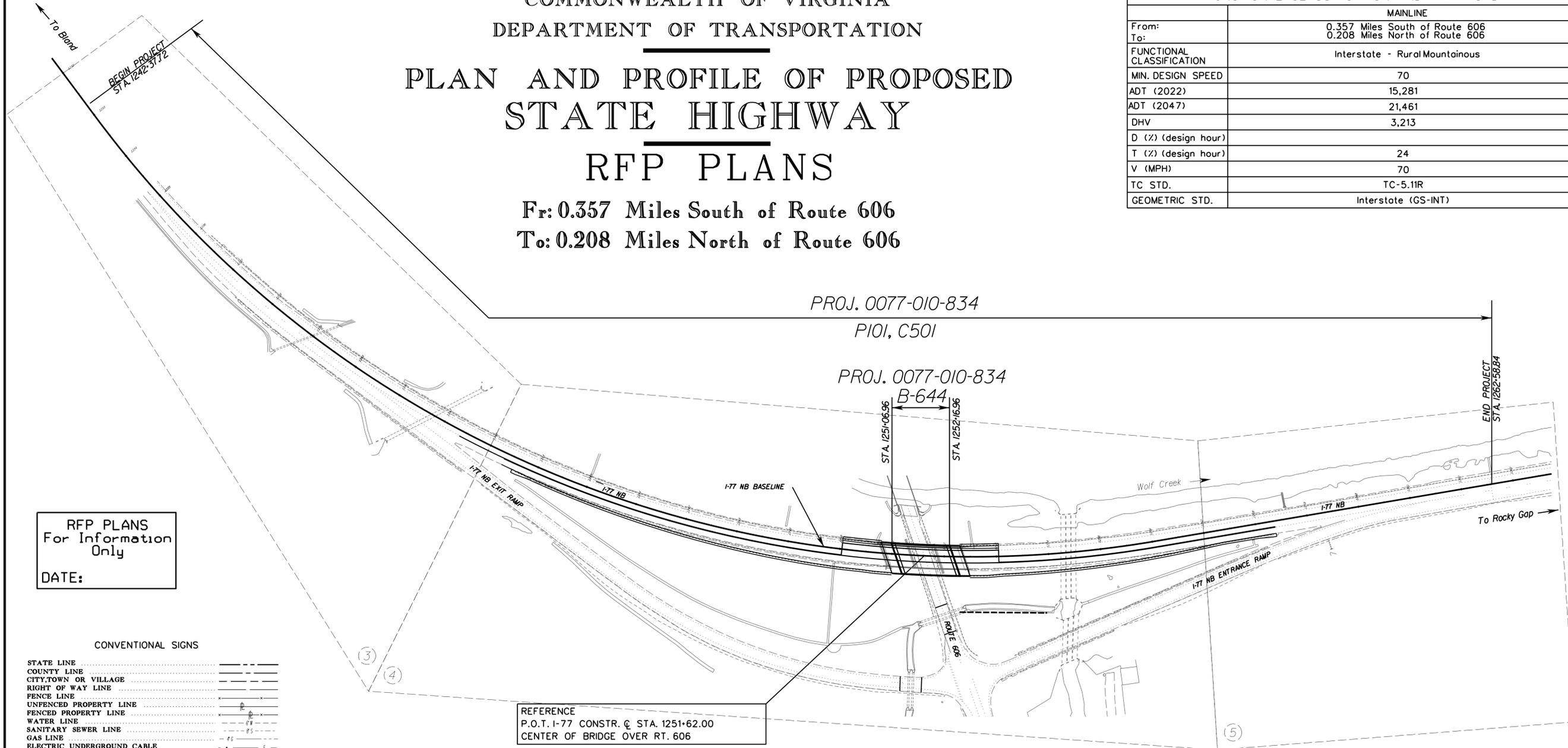
Fr: 0.357 Miles South of Route 606
To: 0.208 Miles North of Route 606

FHWA 534 Data IIIII

STATE	FEDERAL AID PROJECT	ROUTE	STATE PROJECT	SHEET NO.
VA.	NHFP-077-2(1) <small>(SEE TABULATION BELOW FOR SECTION NUMBERS)</small>	77	(FO) 0077-010-834	1

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA	
MAINLINE	
From:	0.357 Miles South of Route 606
To:	0.208 Miles North of Route 606
FUNCTIONAL CLASSIFICATION	Interstate - Rural Mountainous
MIN. DESIGN SPEED	70
ADT (2022)	15,281
ADT (2047)	21,461
DHV	3,213
D (%) (design hour)	
T (%) (design hour)	24
V (MPH)	70
TC STD.	TC-5.11R
GEOMETRIC STD.	Interstate (GS-INT)

PROJECT MANAGER ROBERT C. LEONARD, P.E., (276) 696-3258 (BRISTOL DISTRICT)
SURVEYED BY, DATE LES BYRNESIDE, L.S., (804) 330-3781 (H&B SURVEYING AND MAPPING, LLC.), 1/10/2022
DESIGN BY HDR ENGINEERING, INC., (540) 278-2400 (ROANOKE, VIRGINIA)
SUBSURFACE UTILITY BY, DATE ACCUMARK, 1/12/2022



RFP PLANS
For Information
Only
DATE:

CONVENTIONAL SIGNS

STATE LINE	---
COUNTY LINE	----
CITY, TOWN OR VILLAGE	-----
RIGHT OF WAY LINE	-----
FENCE LINE	-----
UNFENCED PROPERTY LINE	-----
FENCED PROPERTY LINE	-----
WATER LINE	-----
SANITARY SEWER LINE	-----
GAS LINE	-----
ELECTRIC UNDERGROUND CABLE	-----
TRAVELED WAY	-----
GUARD RAIL	-----
RETAINING WALL	-----
RAILROADS	-----
BASE OR SURVEY LINE	-----
LEVEE OR EMBANKMENT	-----
BRIDGES	-----
CULVERTS	-----
DROP INLET	-----
POWER POLES	-----
TELEPHONE OR TELEGRAPH POLES	-----
TELEPHONE OR TELEGRAPH LINES	-----
HEDGE	-----
TREES	-----
HEAVY WOODS	-----
GROUND ELEVATION	-----
GRADE ELEVATION	-----

REFERENCE
P.O.T. I-77 CONSTR. @ STA. 1251+62.00
CENTER OF BRIDGE OVER RT. 606

Population Bland County, 6,270 (2020 Census)

STATE PROJECT NO.	SECTION	FEDERAL AID PROJECT NO.	TYPE CODE	UPC NO.	EQUALITIES		LENGTH INCLUDING BRIDGE(S)		LENGTH EXCLUDING BRIDGE(S)		BRIDGE PLAN NO.	TYPE PROJECT	DESCRIPTION
					FEET	FEET	FEET	FEET	MILES	MILES			
0077-010-834	P101	NHFP-077-2(321)		117110		2981.12	0.565	2871.12	0.544		Prel. Engr.	Fr: 0.357 Miles South of Route 606 To: 0.208 Miles North of Route 606	
	B644	NHFP-077-2(321)	X271	117110		110	0.021			185-15	Bridge	Bridge carrying I-77 NBL over Rt. 606 (State Str. No. 2023)	
	C501	NHFP-077-2(343)	I000	117110		2981.12	0.565	2871.12	0.544		Construction	Fr: 0.357 Miles South of Route 606 To: 0.208 Miles North of Route 606	

All construction is to be performed within the existing right of way.



Project Lengths are based on I-77 Construction Centerline.

Copyright 2022, Commonwealth of Virginia

PROJECT MANAGER: ROBERT C. LEONARD, P.E. (276) 696-3258 (BRISTOL DISTRICT)
 SURVEYED BY, DATE: LES. BYRNSIDE, L.S. (804) 330-3781 (H&B SURVEYING AND MAPPING, LLC.), 1/10/2022
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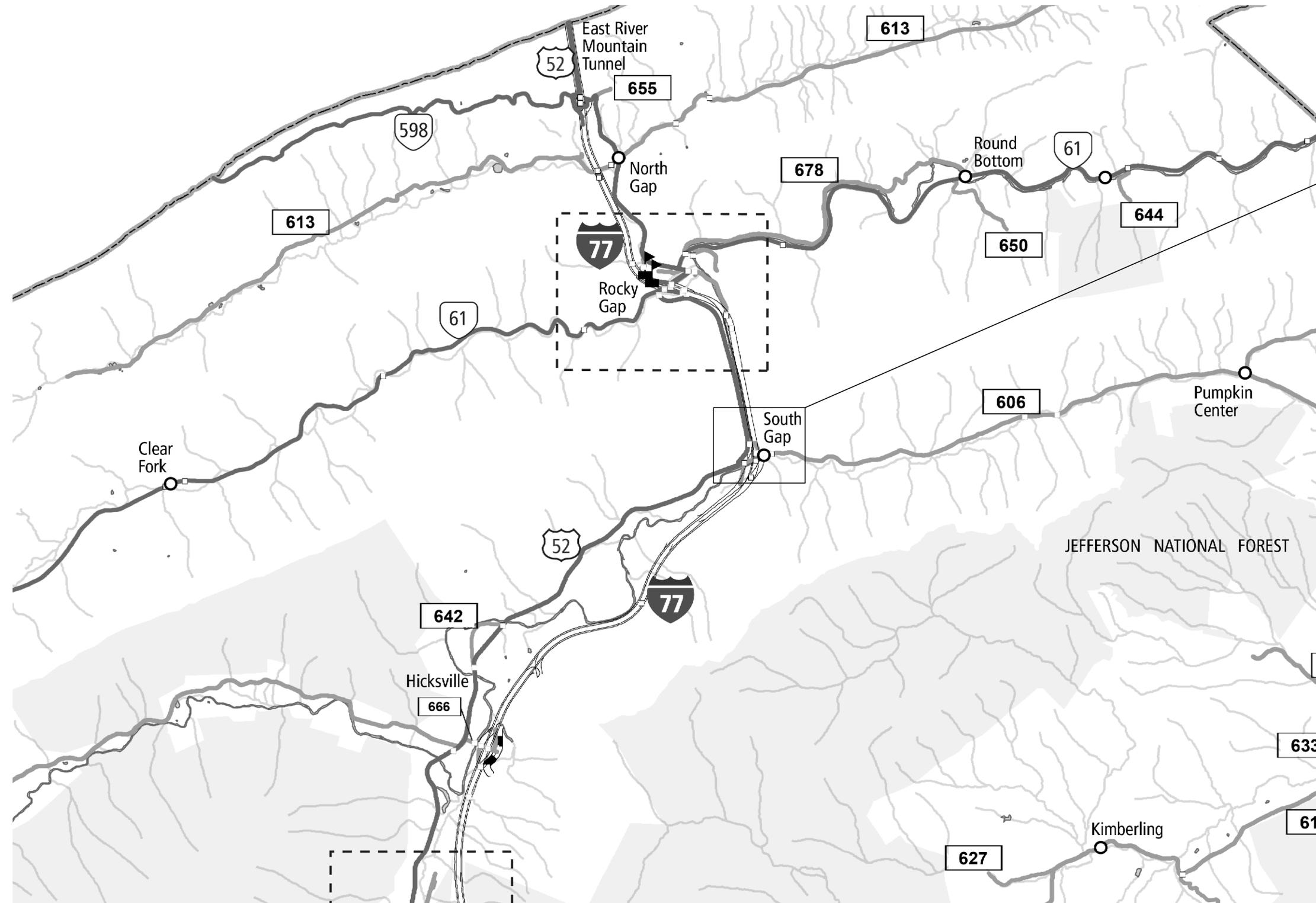
LOCATION MAP

BLAND COUNTY

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	77	0077-010-834, C501	1A

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

BLAND COUNTY
POPULATION 6,270
2020 CENSUS



I-77 OVER ROUTE 606
PROJECT *0077-010-834,
B644, P101, C501

RFP PLANS
For Information
Only
DATE:

NOT TO SCALE	PROJECT 0077-010-834	SHEET NO. 1A
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PROJECT MANAGER ROBERT C. LEONARD, P.E. (276) 696-3258 (BRISTOL DISTRICT)
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INDEX OF SHEETS

REVISED	STATE	STATE		SHEET NO.
		ROUTE	PROJECT	
	VA.	77	0077-010-834, C501	IB

DESIGN FEATURES RELATING TO CONSTRUCTION
 OR TO REGULATION AND CONTROL OF TRAFFIC
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SHEET NO.	DESCRIPTION	STATIONS
1	TITLE SHEET	
1A	LOCATION MAP	
1B	INDEX OF SHEETS	
1E(1) - 1E(2)	SURVEY CONTROL DATA	
1F	CONSTRUCTION ALIGNMENT DATA SHEET	
2	GENERAL NOTES	
2A	TYPICAL SECTIONS	
3, 3A	PLAN AND PROFILE SHEET	Sta. 1232+00 to 1243+00
4, 4A	PLAN AND PROFILE SHEET	Sta. 1243+00 to 1257+00
5, 5A	PLAN AND PROFILE SHEET	Sta. 1257+00 to 1263+00

BRIDGE PLANS, B-644, PLAN NO. ---- (5 SHEETS)

RFP PLANS
 For Information
 Only
 DATE:

PROJECT	SHEET NO.
0077-010-834	IB

PROJECT MANAGER: ROBERT C. LEONARD, P.E. (276) 696-3258 (BRISTOL DISTRICT)
SURVEYED BY, DATE: LES. BYRNSIDE, L.S. (804) 330-3781 (H&B SURVEYING AND MAPPING, LLC.) 1/10/2022
DESIGN BY: HDR ENGINEERING, INC. (540) 278-2400 (ROANOKE, VIRGINIA) -----
SUBSURFACE UTILITY BY, DATE: ACCUMARK, 1/12/2022 -----

SURVEY CONTROL DATA

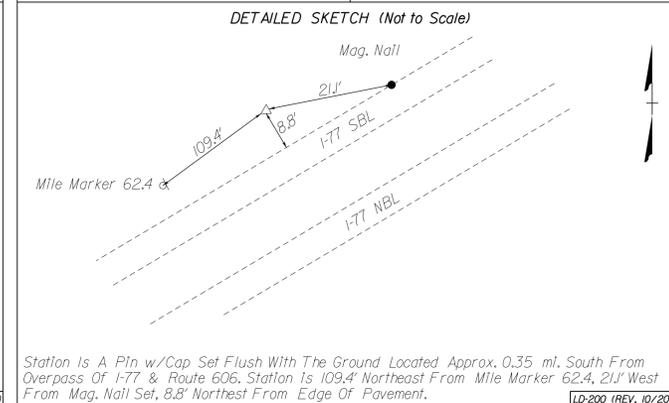
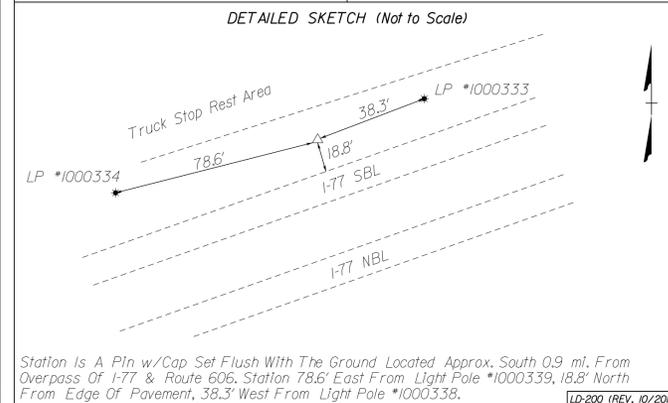
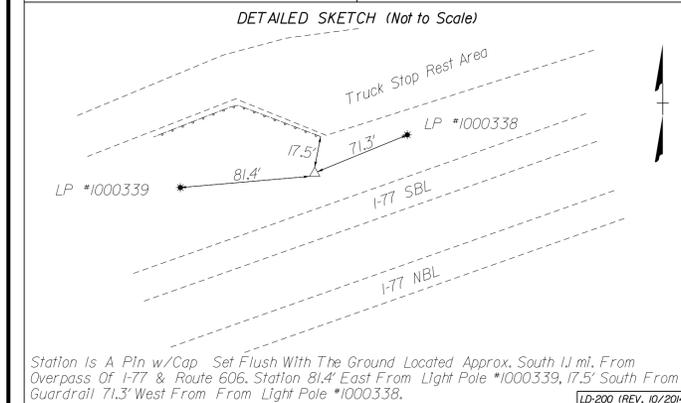
REVISED	STATE	STATE		SHEET NO.
	ROUTE	PROJECT		
	VA.	77	0077-010-834.C501	1E(1)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

LD-200 (REV. 10/2014) Virginia Department of Transportation Horizontal Control Control Station I.D.: <u>976</u> Date: 03-13-20	
VDOT Project Coordinates (2014) East (X): 10,725,985.451 ft. North (Y): 3,609,343.802 ft. Elevation: 2,174.85 ft.	VA State Plane Coordinates : NAD 83 - U.S. Survey Feet East (X): 10,724,403.269 ft. North (Y): 3,608,811.390 ft. Ortho. Elevation (H): 2,174.85 ft. Zone : North - South X (place an 'X' beside one)
Project Specific Combined Scale Factor: 1.000147531 (9 Decimal Places)	Project Information Project Number : <u>UPC 99569</u> Route : <u>ZZ</u> City/County : <u>Blair</u> Established By : <u>Woodport</u>
Latitude : <u>37° 12' 19.4737"</u> N (5 Decimal Places) Longitude : <u>81° 06' 17.44114"</u> W (5 Decimal Places) Geoid Separation (N) : <u>101.41</u> Ellipsoid Height (H) : <u>2073.44</u> Horizontal Datum : <u>NAD83</u> Year : <u>2011</u> Vertical Datum : <u>NAVD88</u> Geoid : <u>12B</u> Azimuth to Station : <u>97.7</u> Is <u>54° 04' 04"</u> Control Based On: CORS Stations DOBS: KYTLNCSRWWATWVLRWVOH	To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula : * Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left) * Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

LD-200 (REV. 10/2014) Virginia Department of Transportation Horizontal Control Control Station I.D.: <u>977</u> Date: 03-13-20	
VDOT Project Coordinates (2014) East (X): 10,726,437.963 ft. North (Y): 3,609,671.765 ft. Elevation: 2,169.56 ft.	VA State Plane Coordinates : NAD 83 - U.S. Survey Feet East (X): 10,724,855.714 ft. North (Y): 3,609,339.305 ft. Ortho. Elevation (H): 2,169.56 ft. Zone : North - South X (place an 'X' beside one)
Project Specific Combined Scale Factor: 1.000147531 (9 Decimal Places)	Project Information Project Number : <u>UPC 99569</u> Route : <u>ZZ</u> City/County : <u>Blair</u> Established By : <u>Woodport</u>
Latitude : <u>37° 12' 22.83815"</u> N (5 Decimal Places) Longitude : <u>81° 06' 11.96220"</u> W (5 Decimal Places) Geoid Separation (N) : <u>101.42</u> Ellipsoid Height (H) : <u>2068.14</u> Horizontal Datum : <u>NAD83</u> Year : <u>2011</u> Vertical Datum : <u>NAVD88</u> Geoid : <u>12B</u> Azimuth to Station : <u>97.6</u> Is <u>234° 04' 04"</u> Control Based On: CORS Stations DOBS: KYTLNCSRWWATWVLRWVOH	To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula : * Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left) * Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

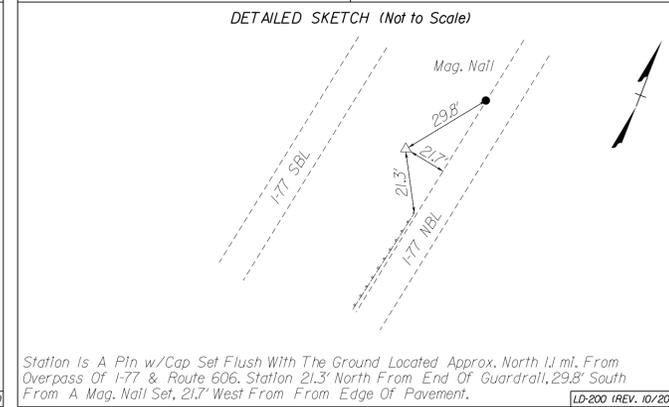
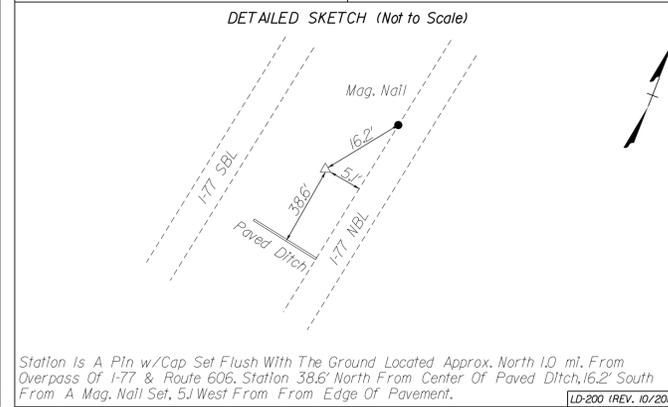
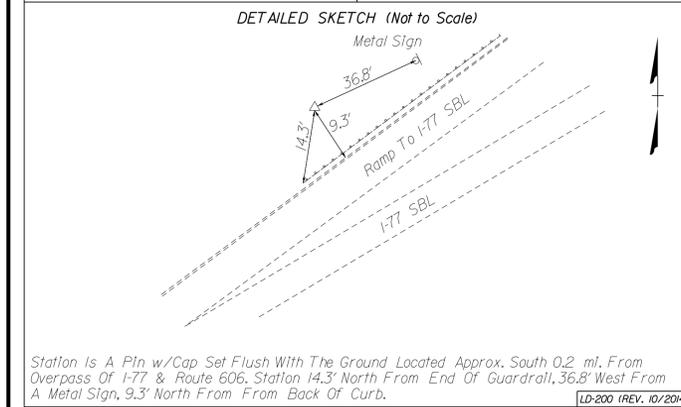
LD-200 (REV. 10/2014) Virginia Department of Transportation Horizontal Control Control Station I.D.: <u>978</u> Date: 03-13-20	
VDOT Project Coordinates (2014) East (X): 10,728,705.094 ft. North (Y): 3,611,461.408 ft. Elevation: 2,129.55 ft.	VA State Plane Coordinates : NAD 83 - U.S. Survey Feet East (X): 10,727,122.511 ft. North (Y): 3,610,928.684 ft. Ortho. Elevation (H): 2,129.55 ft. Zone : North - South X (place an 'X' beside one)
Project Specific Combined Scale Factor: 1.000147531 (9 Decimal Places)	Project Information Project Number : <u>UPC 99569</u> Route : <u>ZZ</u> City/County : <u>Blair</u> Established By : <u>Woodport</u>
Latitude : <u>37° 12' 41.4115"</u> N (5 Decimal Places) Longitude : <u>81° 05' 44.55988"</u> W (5 Decimal Places) Geoid Separation (N) : <u>101.45</u> Ellipsoid Height (H) : <u>2028.18</u> Horizontal Datum : <u>NAD83</u> Year : <u>2011</u> Vertical Datum : <u>NAVD88</u> Geoid : <u>12B</u> Azimuth to Station : <u>97.9</u> Is <u>38° 55' 39"</u> Control Based On: CORS Stations DOBS: KYTLNCSRWWATWVLRWVOH	To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula : * Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left) * Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet



LD-200 (REV. 10/2014) Virginia Department of Transportation Horizontal Control Control Station I.D.: <u>979</u> Date: 03-13-20	
VDOT Project Coordinates (2014) East (X): 10,729,107.338 ft. North (Y): 3,611,959.424 ft. Elevation: 2,116.99 ft.	VA State Plane Coordinates : NAD 83 - U.S. Survey Feet East (X): 10,727,524.696 ft. North (Y): 3,611,426.627 ft. Ortho. Elevation (H): 2,116.99 ft. Zone : North - South X (place an 'X' beside one)
Project Specific Combined Scale Factor: 1.000147531 (9 Decimal Places)	Project Information Project Number : <u>UPC 99569</u> Route : <u>ZZ</u> City/County : <u>Blair</u> Established By : <u>Woodport</u>
Latitude : <u>37° 12' 46.17203"</u> N (5 Decimal Places) Longitude : <u>81° 05' 39.75897"</u> W (5 Decimal Places) Geoid Separation (N) : <u>101.45</u> Ellipsoid Height (H) : <u>2015.54</u> Horizontal Datum : <u>NAD83</u> Year : <u>2011</u> Vertical Datum : <u>NAVD88</u> Geoid : <u>12B</u> Azimuth to Station : <u>97.8</u> Is <u>218° 55' 39"</u> Control Based On: CORS Stations DOBS: KYTLNCSRWWATWVLRWVOH	To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula : * Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left) * Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

LD-200 (REV. 10/2014) Virginia Department of Transportation Horizontal Control Control Station I.D.: <u>980</u> Date: 03-13-20	
VDOT Project Coordinates (2014) East (X): 10,729,063.244 ft. North (Y): 3,618,513.157 ft. Elevation: 2,056.96 ft.	VA State Plane Coordinates : NAD 83 - U.S. Survey Feet East (X): 10,727,480.608 ft. North (Y): 3,617,979.393 ft. Ortho. Elevation (H): 2,056.96 ft. Zone : North - South X (place an 'X' beside one)
Project Specific Combined Scale Factor: 1.000147531 (9 Decimal Places)	Project Information Project Number : <u>UPC 99569</u> Route : <u>ZZ</u> City/County : <u>Blair</u> Established By : <u>Woodport</u>
Latitude : <u>37° 13' 50.92640"</u> N (5 Decimal Places) Longitude : <u>81° 05' 42.53045"</u> W (5 Decimal Places) Geoid Separation (N) : <u>101.49</u> Ellipsoid Height (H) : <u>1955.47</u> Horizontal Datum : <u>NAD83</u> Year : <u>2011</u> Vertical Datum : <u>NAVD88</u> Geoid : <u>12B</u> Azimuth to Station : <u>98.1</u> Is <u>349° 14' 51"</u> Control Based On: CORS Stations DOBS: KYTLNCSRWWATWVLRWVOH	To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula : * Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left) * Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

LD-200 (REV. 10/2014) Virginia Department of Transportation Horizontal Control Control Station I.D.: <u>981</u> Date: 03-13-20	
VDOT Project Coordinates (2014) East (X): 10,728,977.497 ft. North (Y): 3,618,964.694 ft. Elevation: 2,052.72 ft.	VA State Plane Coordinates : NAD 83 - U.S. Survey Feet East (X): 10,727,394.874 ft. North (Y): 3,618,430.863 ft. Ortho. Elevation (H): 2,052.72 ft. Zone : North - South X (place an 'X' beside one)
Project Specific Combined Scale Factor: 1.000147531 (9 Decimal Places)	Project Information Project Number : <u>UPC 99569</u> Route : <u>ZZ</u> City/County : <u>Blair</u> Established By : <u>Woodport</u>
Latitude : <u>37° 13' 55.36534"</u> N (5 Decimal Places) Longitude : <u>81° 05' 43.74367"</u> W (5 Decimal Places) Geoid Separation (N) : <u>101.49</u> Ellipsoid Height (H) : <u>1951.23</u> Horizontal Datum : <u>NAD83</u> Year : <u>2011</u> Vertical Datum : <u>NAVD88</u> Geoid : <u>12B</u> Azimuth to Station : <u>98.0</u> Is <u>169° 14' 51"</u> Control Based On: CORS Stations DOBS: KYTLNCSRWWATWVLRWVOH	To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula : * Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left) * Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet



RFP PLANS
For Information
Only
DATE:

PROJECT 0077-010-834	SHEET NO. 1E(1)
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PROJECT MANAGER: ROBERT C. LEONARD, P.E. (276) 696-3258 (BRISTOL DISTRICT)
SURVEYED BY, DATE: LES. BYRNSIDE, L.S. (804) 330-3781 (H&B SURVEYING AND MAPPING, LLC.) 1/10/2022
DESIGN BY: HDR ENGINEERING, INC. (540) 278-2400 (ROANOKE, VIRGINIA) -----
SUBSURFACE UTILITY BY, DATE: ACCUMARK, 1/12/2022 -----

SURVEY CONTROL DATA

REVISED	STATE	STATE		SHEET NO.
	ROUTE	PROJECT		
	VA.	77	0077-010-834, C501	1E(2)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

VDOT Project Coordinates : NAD 83 - U.S. Survey Feet - Traverse #1

Point ID	Bearing & Distance	Northing	Easting	Elevation	Description
978	N 38° 55' 39" E 640.17'	3,611,461.408	10,728,705.094	2,129.55	Mon.
979	N 15° 36' 18" E 494.09'	3,611,959.424	10,729,107.338	2,116.99	Mon.
1	N 21° 06' 20" E 498.39'	3,612,435.298	10,729,240.248	2,095.06	Rod & Cap
2	N 66° 15' 07" E 514.68'	3,612,900.256	10,729,419.712	2,083.30	Rod & Cap
3	N 79° 06' 30" E 387.98'	3,613,107.527	10,729,890.814	2,079.63	Rod & Cap
4	N 28° 11' 22" W 386.95'	3,613,180.837	10,730,271.808	2,076.17	Rod & Cap
5	N 28° 49' 50" W 358.45'	3,613,521.888	10,730,089.020	2,085.07	Rod & Cap
6	N 7° 38' 39" W 402.52'	3,613,835.904	10,729,916.170	2,094.59	Rod & Cap
7	N 9° 19' 25" W 393.04'	3,614,234.844	10,729,862.626	2,089.78	Rod & Cap
8	N 11° 24' 55" W 434.69'	3,614,622.687	10,729,798.951	2,085.60	Rod & Cap
9	N 10° 07' 03" W 440.61'	3,615,048.778	10,729,712.918	2,082.54	Rod & Cap
10	N 9° 55' 25" W 484.78'	3,615,482.540	10,729,635.517	2,079.22	Rod & Cap
11	N 9° 12' 54" W 464.25'	3,615,960.062	10,729,551.973	2,075.85	Rod & Cap
12	N 9° 53' 50" W 542.95'	3,616,418.324	10,729,477.628	2,072.14	Rod & Cap
13	N 9° 12' 55" W 503.84'	3,616,953.196	10,729,384.306	2,068.75	Rod & Cap
14	N 10° 29' 49" W 513.08'	3,617,450.533	10,729,303.618	2,064.54	Rod & Cap
15	N 14° 44' 45" W 577.14'	3,617,955.024	10,729,210.144	2,060.96	Rod & Cap
980	N 10° 45' 09" W 459.61'	3,618,513.157	10,729,063.244	2,056.96	Mon.
981		3,618,964.694	10,728,977.497	2,052.72	Mon.

Survey Traverse Results:
Closure Precision 1:67,183

VDOT Project Coordinates : NAD 83 - U.S. Survey Feet - Traverse #2

Point ID	Bearing & Distance	Northing	Easting	Elevation	Description
4	S 12° 12' 54" W 375.59'	3,613,180.837	10,730,271.808	2,076.17	Rod & Cap
20	S 27° 48' 28" W 340.62'	3,612,813.754	10,730,192.342	2,084.09	Rod & Cap
21	S 44° 10' 27" W 387.76'	3,612,512.473	10,730,033.441	2,100.12	Rod & Cap
22	S 30° 36' 35" W 384.59'	3,612,234.363	10,729,763.235	2,115.39	Rod & Cap
23	S 45° 07' 54" W 402.30'	3,611,903.360	10,729,567.405	2,119.72	Rod & Cap
24	S 52° 02' 05" W 387.98'	3,611,619.546	10,729,282.284	2,125.37	Rod & Cap
25	S 63° 58' 17" W 418.67'	3,611,380.870	10,728,976.410	2,129.43	Rod & Cap
26	N 21° 38' 59" E 284.32'	3,611,197.147	10,730,089.020	2,085.07	Rod & Cap
978		3,611,461.408	10,728,705.094	2,129.55	Mon.

Survey Traverse Results:
Closure Precision 1:67,183

VDOT Project Coordinates : NAD 83 - U.S. Survey Feet - Traverse #3

Point ID	Bearing & Distance	Northing	Easting	Elevation	Description
976	N 54° 04' 01" E 558.86'	3,609,343.802	10,725,985.451	2,174.85	Mon.
977	N 53° 10' 55" E 404.63'	3,609,671.765	10,726,437.963	2,169.56	Mon.
40	N 51° 05' 43" E 423.13'	3,609,914.247	10,726,761.883	2,166.18	Rod & Cap
41	N 52° 13' 59" E 517.01'	3,610,179.984	10,727,091.160	2,161.83	Rod & Cap
42	N 52° 38' 53" E 525.48'	3,610,496.625	10,727,499.859	2,153.38	Rod & Cap
43	N 51° 52' 38" E 476.03	3,610,815.442	10,727,917.577	2,145.55	Rod & Cap
44	N 51° 52' 38" E 476.03	3,611,109.315	10,728,292.062	2,137.90	Rod & Cap
26		3,611,197.147	10,730,089.020	2,085.07	Rod & Cap

Survey Traverse Results:
Closure Precision 1:67,183

VDOT Project Coordinates : NAD 83 - U.S. Survey Feet - Traverse #4

Point ID	Bearing & Distance	Northing	Easting	Elevation	Description
22	N 21° 35' 21" E 412.47'	3,612,234.363	10,729,763.235	2,115.39	Rod & Cap
30	N 9° 54' 53" E 394.89'	3,612,617.895	10,729,915.002	2,108.25	Rod & Cap
31	N 00° 23' 37" W 412.21'	3,613,006.886	10,729,982.995	2,105.23	Mag Nail
32	N 8° 43' 42" W 421.70'	3,613,419.086	10,729,980.164	2,100.06	Mag Nail
6		3,613,835.904	10,729,916.170	2,094.59	Rod & Cap

Survey Traverse Results:
Closure Precision 1:67,183

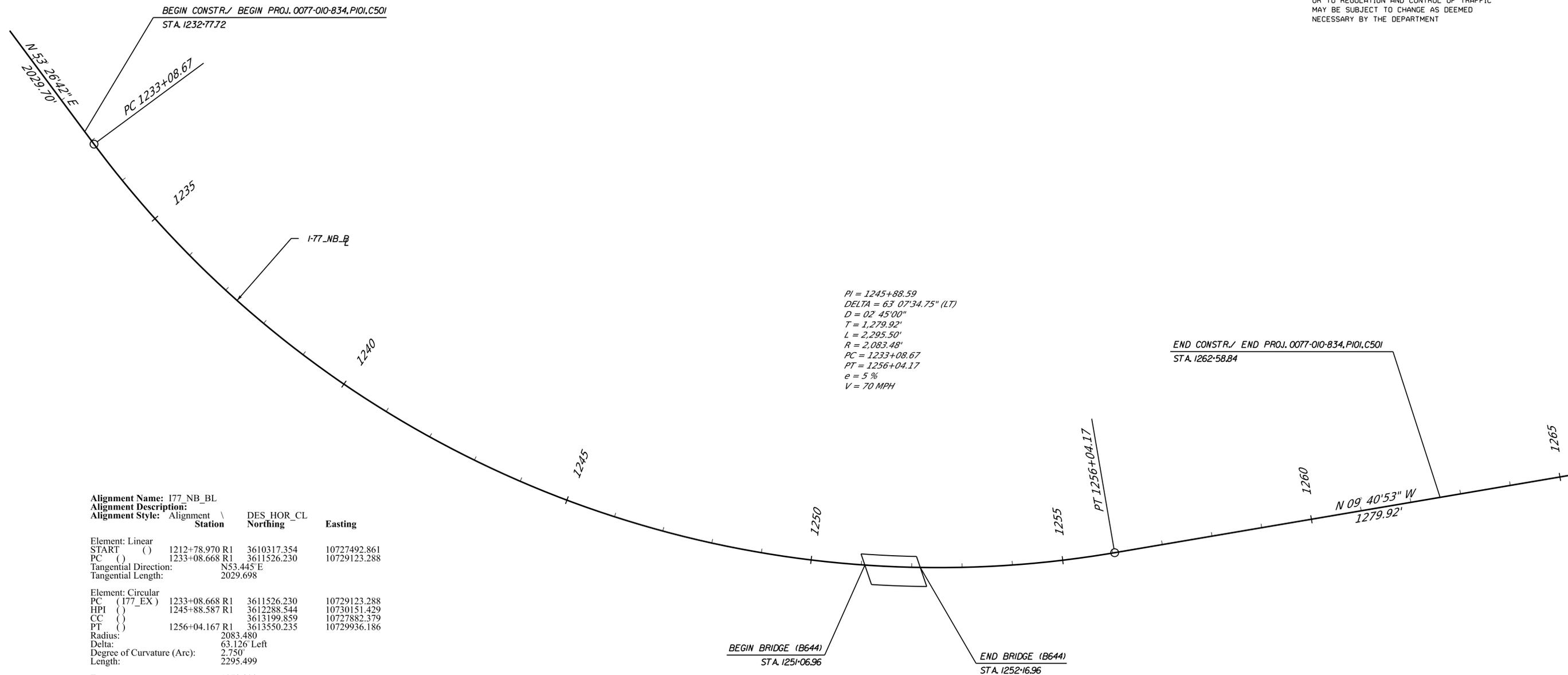
RFP PLANS
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DATE:

PROJECT MANAGER: ROBERT C. LEONARD, P.E. (276) 696-3258 (BRISTOL DISTRICT)
 SURVEYED BY, DATE: LES. BYRNSIDE, L.S. (804) 330-3781 (H&B SURVEYING AND MAPPING, LLC.), 1/10/2022
 DESIGN BY: HDR ENGINEERING, INC. (540) 278-2400 (ROANOKE, VIRGINIA) -----
 SUBSURFACE UTILITY BY, DATE: ACCUMARK, 1/12/2022 -----

CONSTRUCTION ALIGNMENT DATA

REVISED	STATE	STATE		SHEET NO.
	ROUTE	PROJECT		
	VA.	77	0077-010-834, C501	IF

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



Alignment Name: I77_NB_BL
Alignment Description:
Alignment Style: Alignment \ DES_HOR_CL

Station	Northing	Easting
Element: Linear		
START ()	1212+78.970 R1	3610317.354
PC ()	1233+08.668 R1	3611526.230
Tangential Direction:	N53.445° E	
Tangential Length:	2029.698	
Element: Circular		
PC ()	1233+08.668 R1	3611526.230
HPI ()	1245+88.587 R1	3612288.544
CC ()		3613199.859
PT ()	1256+04.167 R1	3613550.235
Radius:	2083.480	
Delta:	63.126° Left	
Degree of Curvature (Arc):	2.750°	
Length:	2295.499	
Tangent:	1279.920	
Chord:	2181.146	
Middle Ordinate:	308.222	
External:	361.736	
Back Tangent Direction:	N53.445° E	
Back Radial Direction:	S36.555° E	
Chord Direction:	N21.882° E	
Ahead Radial Direction:	N80.319° E	
Ahead Tangent Direction:	N9.681° W	
Element: Linear		
PT ()	1256+04.167 R1	3613550.235
END ()	1268+84.087 R1	3614811.926
Tangential Direction:	N9.681° W	
Tangential Length:	1279.920	

PI = 1245+88.59
 DELTA = 63° 07' 34.75" (LT)
 D = 02° 45' 00"
 T = 1,279.92'
 L = 2,295.50'
 R = 2,083.48'
 PC = 1233+08.67
 PT = 1256+04.17
 e = 5 %
 V = 70 MPH

BEGIN BRIDGE (B644)
 STA. 1251+06.96

END BRIDGE (B644)
 STA. 1252+16.96

RFP PLANS
 For Information
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DATE: _____

SCALE 0 100' 200'	PROJECT 0077-010-834	SHEET NO. IF
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PROJECT MANAGER: ROBERT C. LEONARD, P.E. (276) 696-3258 (BRISTOL DISTRICT)
SURVEYED BY, DATE: LES. BYRNSIDE, L.S. (804) 330-3781 (H&B SURVEYING AND MAPPING, LLC.), 1/10/2022
DESIGN BY: HDR ENGINEERING, INC. (540) 278-2400 (ROANOKE, VIRGINIA) -----
SUBSURFACE UTILITY BY, DATE: ACCUMARK, 1/12/2022 -----

GENERAL NOTES

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	77	0077-010-834, C501	

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

DRAINAGE

- D-1 The horizontal location of all drainage structures shown on these plans is approximate only, with the exception of structures showing specific stations, special design bridges and storm sewer systems.
- D-2 The horizontal location and invert elevations shown for proposed culverts and storm sewer outfall pipes are based on existing survey data and required design criteria. If during construction, it is found that the horizontal location or invert elevations shown on the plans differ significantly from the horizontal location or elevations of the stream or swale in which the culvert or storm sewer outfall pipe is to be placed, the Engineer shall confer with, and get approval from, the applicable District Drainage Engineer before installing the culvert or storm sewer outfall pipe.
- D-3 The "H" dimensions shown on plans for drop inlets and junction boxes and the "L.F." dimensions shown for manholes are for estimating purposes and are based on the proposed invert elevations shown for the structure and the anticipated top (rim) elevation based on existing or proposed finished grade. The actual "H" or "L.F." dimensions are to be determined by the contractor from field conditions.
- D-8 Where open joint pipe is to be used, no joint shall be opened a distance exceeding 25% of the spigot length. Sealing of the pipe joint shall be in accordance with Section 302 of the applicable VDOT Road and Bridge Specifications.

GRADING

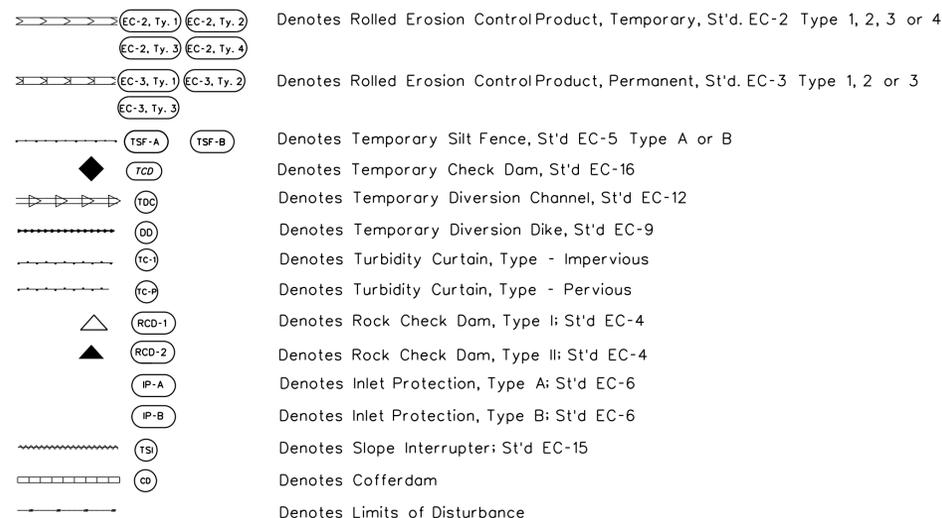
- G-1 The grade line denotes top of finished pavement unless shown otherwise on typical sections or plans.
- G-2 Earthwork quantities on this project are based on anticipated settlement and may require adjusting during construction.
- G-6 The borrow material for this project shall be a minimum CBR----- or as approved by the Materials Engineer.

PAVEMENT

- P-2 The pavement materials on this project will be paid for on a tonnage basis. The weight will vary in accordance with the specific gravity of the aggregates and the asphaltic content of the mix actually used to secure the design depth. The weight of the asphalt concrete is based on 95% of the theoretical maximum density.

EROSION AND SEDIMENT CONTROL (ESC)

- E-1 If the removal of Brush Silt Barrier is specified by the plans or required by the Engineer, the cost of removal and disposal of brush shall be in accordance with Section 109 of the applicable VDOT Road and Bridge Specifications.
- E-2 Rock for Check Dams, Inlet Protection, Erosion Control Stone and Riprap shall be in accordance with Section 203 and Section 414 of the applicable VDOT Road and Bridge Specifications.
- E-3 The following symbols are used to depict Erosion and Sediment Control items in the plan assembly:



- E-4 Permanent vegetation shall be established on all denuded areas not otherwise stabilized with non-erodible materials. See the Roadside Development sheet for details on permanent vegetation establishment.

INCIDENTALS

- I-19 The following outside sources, under contract with VDOT, have provided information on this project.

Hydraulic Design	-	HDR Engineering, Inc.
Roadway Design	-	HDR Engineering, Inc.
Utility Design	-	" " " "
Utility Designation	-	" " " "
Utility Location	-	" " " "
Survey	-	H&B Surveying and Mapping, LLC.
Bridge Design	-	HDR Engineering, Inc.
Traffic Design	-	" " " "
Landscape Design	-	" " " "

If questions or problems arise during construction, please contact the Area Construction Engineer. DO NOT CONTACT THE OUTSIDE SOURCES.

- I-20 The Official Electronic PDF Version of the plans will override the paper copies or prints of specific layers.

Portions of this plan assembly have been CADD generated. To assist in the preparation of the bid and construction of the project, Microstation format (.dgn) files will be made available to the prime contractor during bids and after award of the contract.

- I-21 All electronic plan assemblies will include the construction plans in two formats: PDF files and MicroStation format (.dgn) files. Only the PDF files will be considered as part of the official plan assembly.

The MicroStation format (.dgn) files are furnished only as information for the contractor. These plans are developed in layers (levels) to aid in readability. (See the VDOT CADD Manual for CADD Level Structure). However, the construction items may or may not be in the proper layering scheme as described in the VDOT CADD Manual. The Microstation files will only match the scanned files if all required levels are turned on. A Microstation Software license is required to be able to read these files.

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DATE:

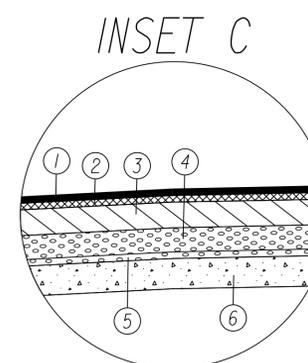
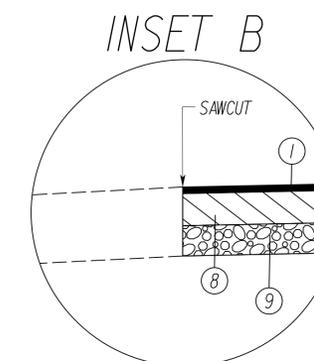
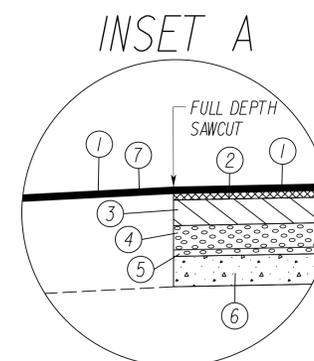
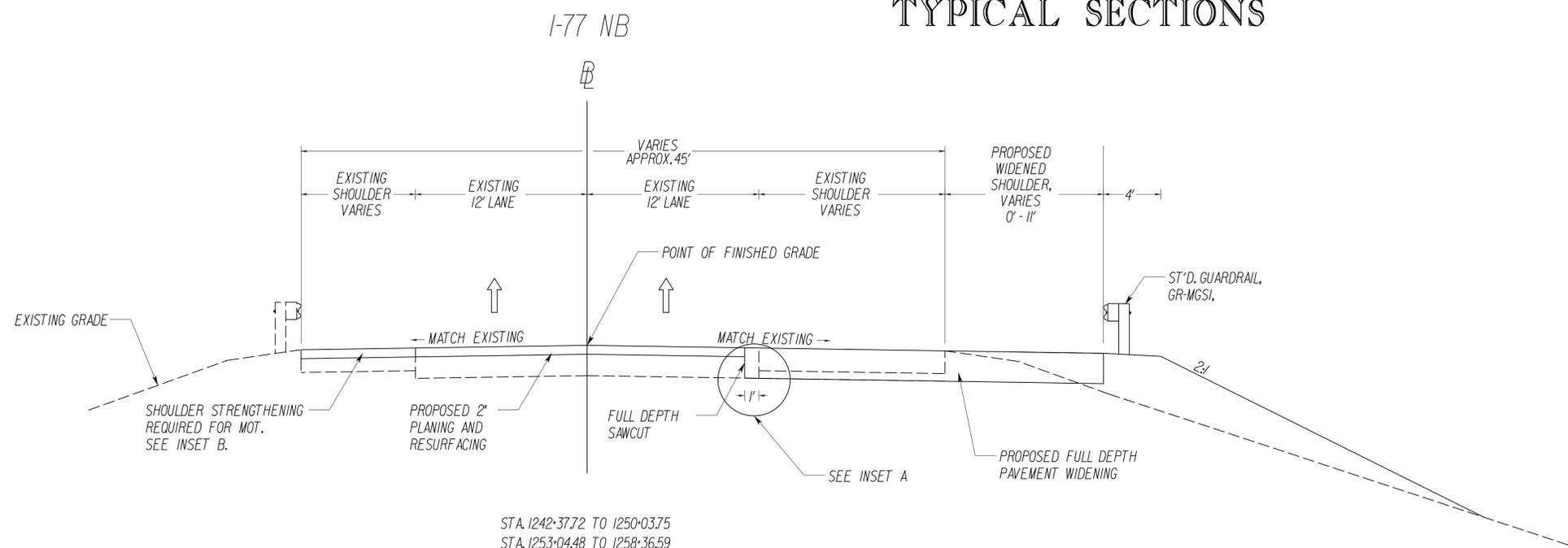
NOT TO SCALE	PROJECT 0077-010-834	SHEET NO. 2
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PROJECT MANAGER: ROBERT C. LEONARD, P.E. (276) 696-3258 (BRISTOL DISTRICT)
SURVEYED BY, DATE: LES. BYRNESIDE, L.S. (804) 330-3781 (H&B SURVEYING AND MAPPING, LLC.) 1/10/2022
DESIGN BY: HDR ENGINEERING, INC. (540) 278-2400 (ROANOKE, VIRGINIA)
SUBSURFACE UTILITY BY, DATE: ACCUMARK, 1/12/2022

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	77	0077-010-834.C501	2A

TYPICAL SECTIONS

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

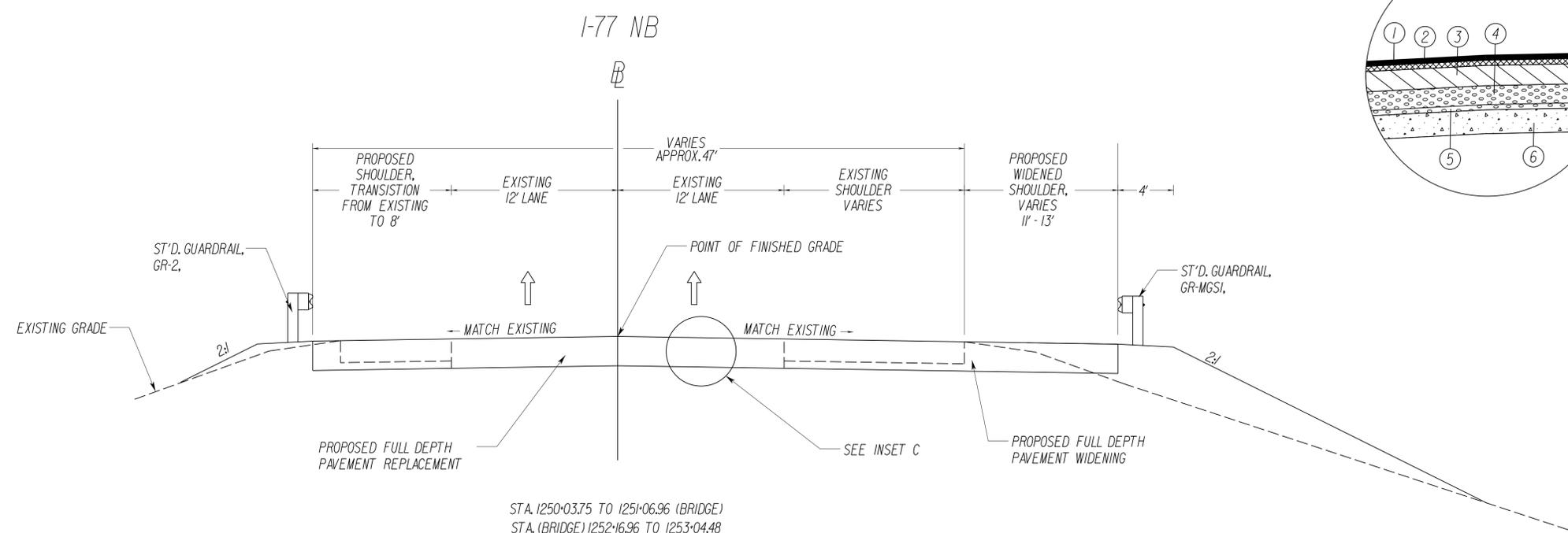


LEGEND

- ① SURFACE - 2" ASPHALT CONCRETE SURFACE COURSE, TYPE SM-12.5E ESTIMATED AT 220 LB/YD'
- ② 2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE IM-19.0E ESTIMATED AT 230 LB/YD'
- ③ BASE - 10" ASPHALT CONCRETE, TYPE BM-25.0A
- ④ SUBBASE - 8" AGGREGATE BASE MATERIAL, TYPE 1, SIZE 21B, EXTENDED TO THE FACE OF THE STANDARD UD-4 EDGEDRAIN OR DAYLIGHT
- ⑤ SUBBASE - 2" AGGREGATE BASE MATERIAL, TYPE 1, SIZE 21B - LEVELING COURSE, EXTENDED TO THE FACE OF THE STANDARD UD-4 EDGEDRAIN OR DAYLIGHT
- ⑥ SUBBASE - 12" OPEN GRADED AGGREGATE MATERIAL, TYPE 1, EXTENDED TO THE FACE OF THE STANDARD UD-4 EDGEDRAIN OR DAYLIGHT
- ⑦ 2" FLEXIBLE PAVEMENT PLANING
- ⑧ BASE - 9" ASPHALT CONCRETE, TYPE BM-25.0A (PLACED IN 4-1/2" LIFTS)
- ⑨ EXISTING AGGREGATE BASE BELOW 11"

NOTES:

1. PAVEMENT WIDENING SHALL BE IN ACCORDANCE WITH VDOT STANDARD WP-2 OR PROVIDED PAVEMENT SECTION, WHICHEVER IS GREATER.
2. IF UD-4 IS ENCOUNTERED DURING FULL DEPTH SAWCUT OF EXISTING PAVEMENT, IT SHALL BE RELOCATED BELOW THE WIDENING FULL DEPTH PAVEMENT.
3. SURFACE COURSE FOR PLANING AND RESURFACING OF THE EXISTING PAVEMENT SHALL BE PLACED CONCURRENTLY.
4. EXISTING GUARDRAIL BEYOND LIMITS OF FIXED OBJECT ATTACHMENT TO REMAIN.
5. EXISTING PAVEMENT THICKNESS SHOWN FOR REFERENCE ONLY.



RFP PLANS
For Information
Only
DATE:

NOT TO SCALE	PROJECT 0077-010-834	SHEET NO. 2A
--------------	-------------------------	-----------------

\$DGN\$
\$DGNLEV

\$REF001
\$LEV001

\$REF002
\$LEV002

\$REF003
\$LEV003

\$REF004
\$LEV004

\$REF005
\$LEV005

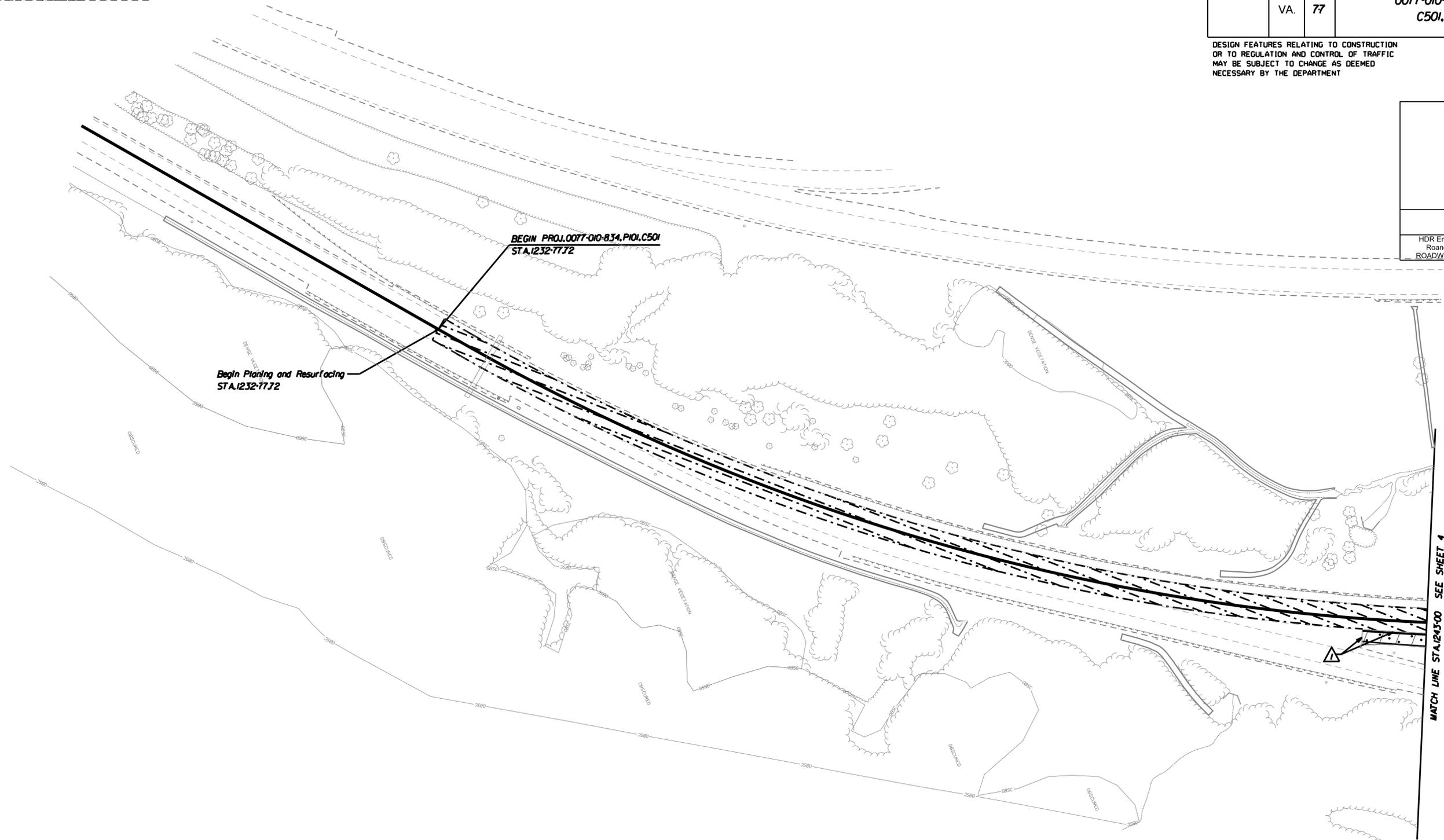
\$REF006
\$LEV006

PROJECT MANAGER ROBERT C. LEONARD, P.E. (276) 696-3258 (BRISTOL DISTRICT)
SURVEYED BY, DATE LES. BYRNSIDE, L.S. (804) 330-3781 (H&B SURVEYING AND MAPPING, LLC.) 1/10/2022
DESIGN BY HDR ENGINEERING, INC. (540) 278-2400 (ROANOKE, VIRGINIA) ---
SUBSURFACE UTILITY BY, DATE ACCUMARK, 1/12/2022

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	77		0077-010-834 C501, P101	3

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

HDR Engineering, Inc.
Roanoke, Virginia
ROADWAY ENGINEER



- 1 Saw Cut Full Depth Req'd.
- 2 Sr'd. GR-MGS1 Req'd.
- 3 Sr'd. GR-MGS2 Req'd.
- 4 Tie to existing guardrail
- 5 Sr'd. GR-FOA-2, Type I Req'd.
- 6 Sr'd. GR-FOA-2, Type II Req'd.
- 7 Sr'd. GR-2 Req'd.
- 8 Sr'd. GR-MGS4 Req'd.
- 9 Sr'd. GR-9 Req'd.

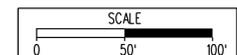
- DENOTES TEMPORARY PAVEMENT
- DENOTES PLANING AND RESURFACING
- DENOTES DEMOLITION OF PAVEMENT
- DENOTES PROPOSED ASPHALT

- Denotes Construction Limits in Cuts
- Denotes Construction Limits in Fills

Note: Dot-dash-dashed lines denote Temporary Easements.
Dot-dashed lines denote Permanent Easements.

REFERENCES
(PROFILES, DETAIL & DRAINAGE
DESCRIPTION SHEETS, ETC.)

Mainline Profile 3A



PROJECT	SHEET NO.
0077-010-834	3

\$TIME\$STAMPS

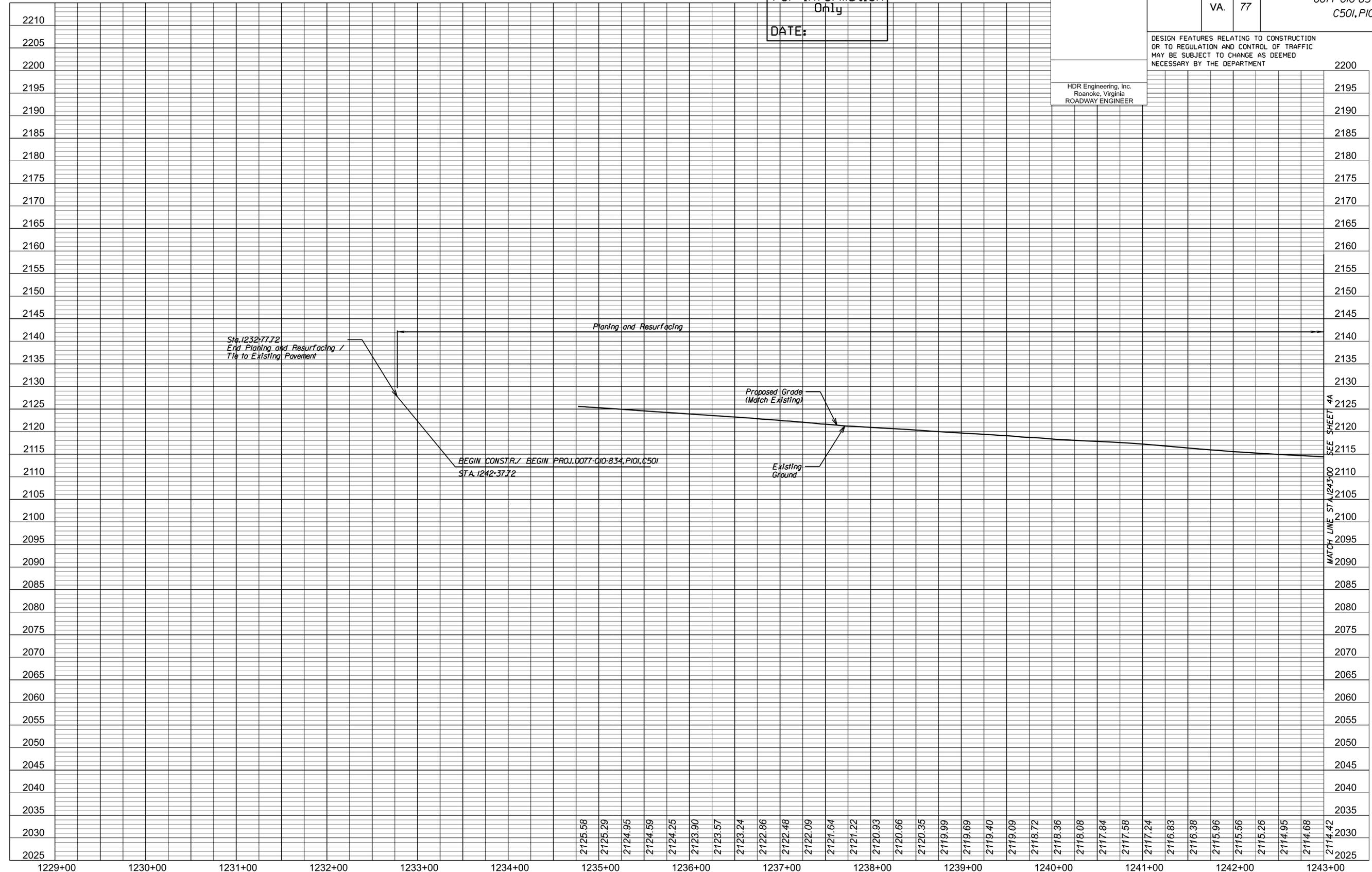
PROJECT MANAGER BOBERT C. LEONARD, P.E. (276) 696-3258 (BRISTOL DISTRICT)
SURVEYED BY, DATE LES. BYRNSIDE, L.S. (804) 330-3781 (H&B SURVEYING AND MAPPING, LLC), 1/10/2022
DESIGN BY HDR ENGINEERING, INC. (540) 278-2400 (ROANOKE, VIRGINIA) ----
SUBSURFACE UTILITY BY, DATE ACCUMARK, 1/12/2022

RFP PLANS
For Information
Only
DATE:

REVISED	STATE		PROJECT	SHEET NO.
	STATE	ROUTE		
	VA.	77	0077-010-834 C501, P101	3A

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

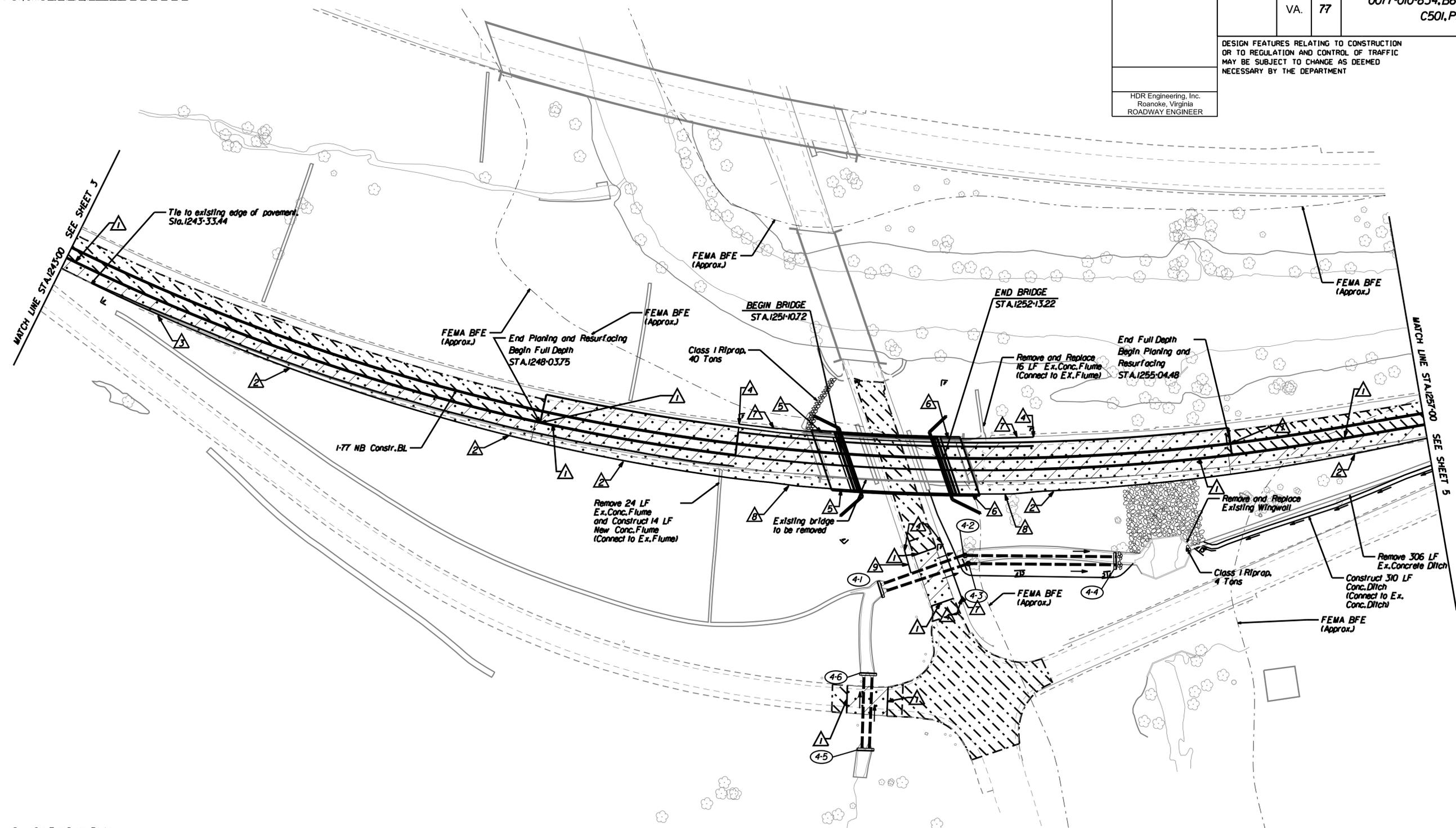
HDR Engineering, Inc.
Roanoke, Virginia
ROADWAY ENGINEER



PROJECT
0077-010-834
SHEET NO.
3A

PROJECT MANAGER ROBERT C. LEONARD, P.E. 12761.696.3258 (BRISTOL DISTRICT)
 SURVEYED BY, DATE LES. BY/RSIDE L.S. (804) 330-3781/H&B SURVEYING AND MAPPING, LLC. 1/10/2022
 DESIGN BY HDR ENGINEERING, INC. (540) 278-2400 (ROANOKE, VIRGINIA) ---
 SUBSURFACE UTILITY BY, DATE ACCUMARK, 1/12/2022

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	77	0077-010-834, B644 C501, P101	4
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT				
HDR Engineering, Inc. Roanoke, Virginia ROADWAY ENGINEER				



- 1 Saw Cut Full Depth Req'd.
- 2 Srd. GR-MGS1 Req'd.
- 3 Srd. GR-MGS2 Req'd.
- 4 Tile to existing guardrail
- 5 Srd. GR-FOA-2, Type I Req'd.
- 6 Srd. GR-FOA-2, Type II Req'd.
- 7 Srd. GR-2 Req'd.
- 8 Srd. GR-MGS4 Req'd.
- 9 Srd. GR-9 Req'd.

- DENOTES TEMPORARY PAVEMENT
- DENOTES PLANING AND RESURFACING
- DENOTES DEMOLITION OF PAVEMENT
- DENOTES PROPOSED ASPHALT

- Denotes Construction Limits in Cuts
- Denotes Construction Limits in Fills

Note: Dot-dot-dashed lines denote Temporary Easements.
 Dot-dashed lines denote Permanent Easements.

REFERENCES
 (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Mainline Profile 4A

SCALE 0 50' 100'

PROJECT	SHEET NO.
0077-010-834	4

\$TIME\$TAMPS

\$DGN\$
\$DGNLEV

\$REF001
\$LEV001

\$REF002
\$LEV002

\$REF003
\$LEV003

\$REF004
\$LEV004

\$REF005
\$LEV005

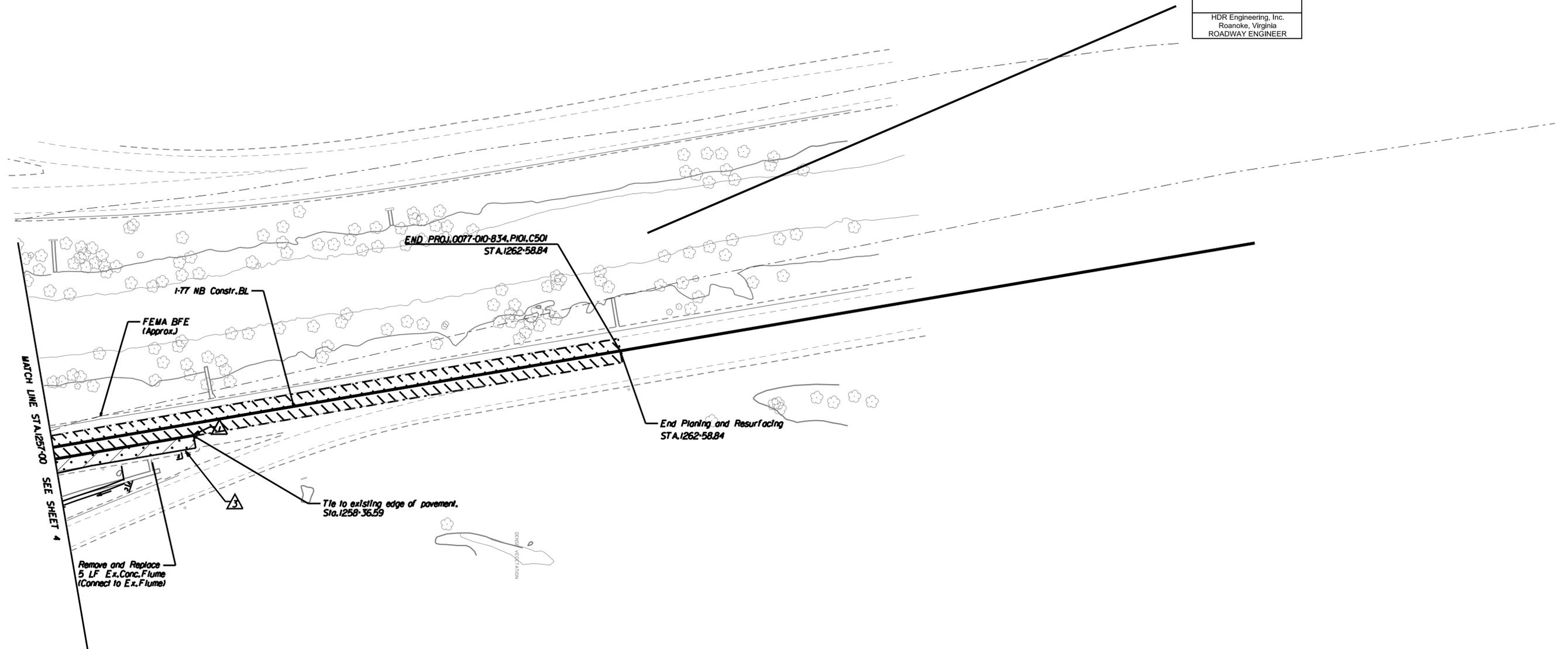
\$REF006
\$LEV006

PROJECT MANAGER ROBERT C. LEONARD, P.E. 12761.696.3258 (BRISTOL DISTRICT)
SURVEYED BY, DATE LES. BY/RSIDE L.S. (804) 330-3781/H&B SURVEYING AND MAPPING, LLC. 1/10/2022
DESIGN BY HDR ENGINEERING, INC. (540) 278-2400 (ROANOKE, VIRGINIA) --
SUBSURFACE UTILITY BY, DATE ACCUMARK 1/12/2022

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	77	0077-010-834, B644 C501, P101	5

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

HDR Engineering, Inc.
Roanoke, Virginia
ROADWAY ENGINEER



- 1 Saw Cut Full Depth Req'd.
- 2 Srd. GR-MGS1 Req'd.
- 3 Srd. GR-MGS2 Req'd.
- 4 Tile to existing guardrail
- 5 Srd. GR-FOA-2, Type I Req'd.
- 6 Srd. GR-FOA-2, Type II Req'd.
- 7 Srd. GR-2 Req'd.
- 8 Srd. GR-MGS4 Req'd.
- 9 Srd. GR-9 Req'd.

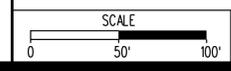
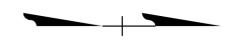
- DENOTES TEMPORARY PAVEMENT
- DENOTES PLANING AND RESURFACING
- DENOTES DEMOLITION OF PAVEMENT
- DENOTES PROPOSED ASPHALT

- Denotes Construction Limits in Cuts
- Denotes Construction Limits in Fills

Note: Dot-dot-dashed lines denote Temporary Easements.
Dot-dashed lines denote Permanent Easements.

REFERENCES
(PROFILES, DETAIL & DRAINAGE
DESCRIPTION SHEETS, ETC.)

Mainline Profile 5A



PROJECT	SHEET NO.
0077-010-834	5

\$TIME\$STAMPS

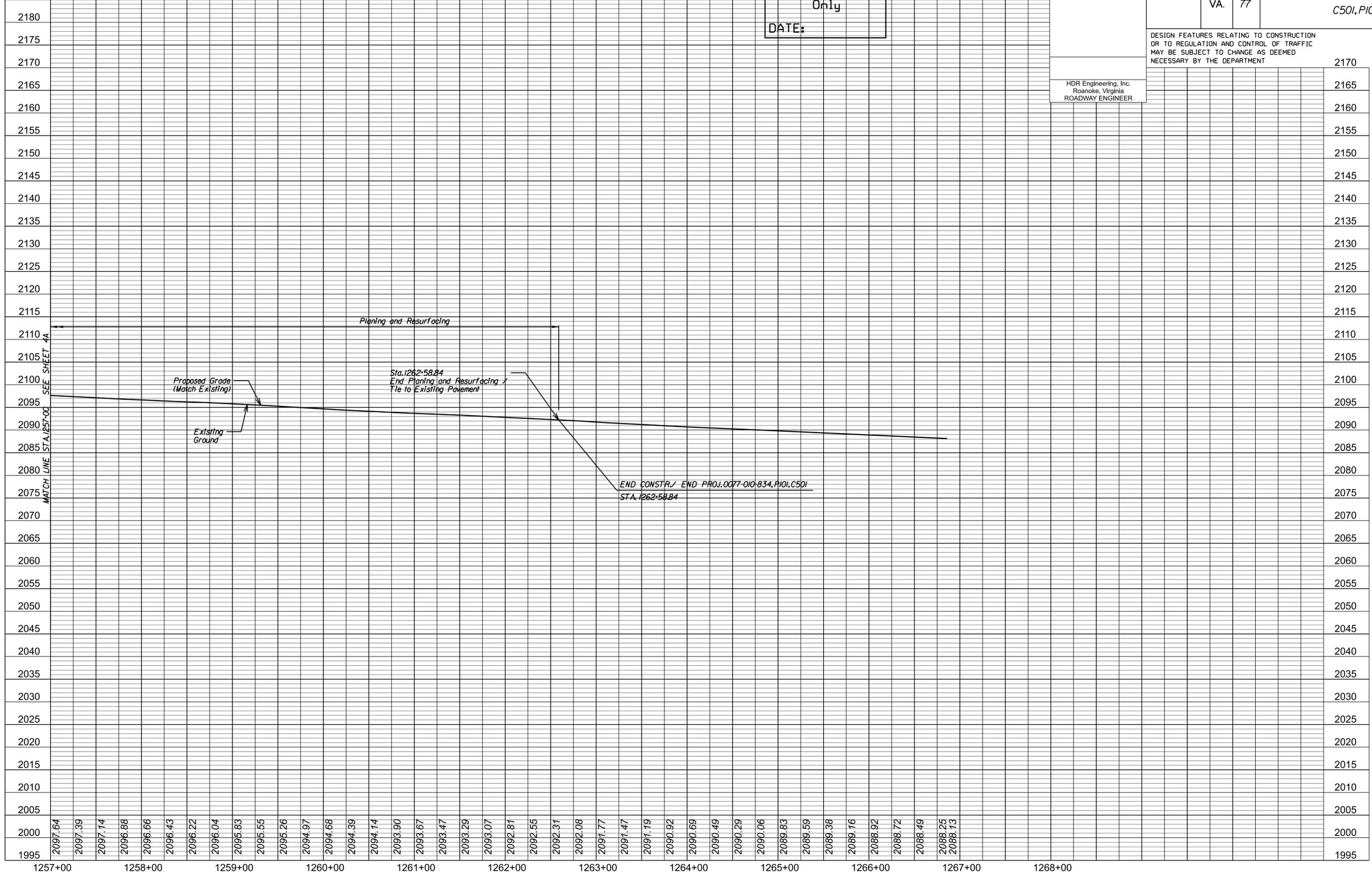
PROJECT MANAGER ROBERT C. LEONARD, P.E. (276) 696-3258 (BRISTOL DISTRICT)
 SURVEYED BY, DATE LES. BYRNSIDE, L.S. (804) 330-3781 (H&B SURVEYING AND MAPPING, LLC), 1/10/2022
 DESIGN BY HDR ENGINEERING, INC. (540) 278-2400 (ROANOKE, VIRGINIA) ----
 SUBSURFACE UTILITY BY, DATE ACCUMARK, 1/12/2022

RFP PLANS
For Information
Only
DATE:

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	77	0077-010-834 C501, P101	5A

DESIGN FEATURES RELATING TO CONSTRUCTION
OR TO REGULATION AND CONTROL OF TRAFFIC
MAY BE SUBJECT TO CHANGE AS DEEMED
NECESSARY BY THE DEPARTMENT

HDR Engineering, Inc.
Roanoke, Virginia
ROADWAY ENGINEER



PROJECT
0077-010-834
SHEET NO.
5A

4.2.8: Conceptual Bridge Plans



STATE	FEDERAL AID		STATE		SHEET
ROUTE	PROJECT		ROUTE	PROJECT	NO.
VA.	NHFP-077-2(321)		77	0077-010-834, B644	I
Federal Structure No. 0000000031578			FHWA Construction and Scour Code: X271-SN		
Federal Stewardship and Oversight Code: F0			UPC No. 117110		

GENERAL NOTES:

The original approved sheet, including original signatures, is filed in the VDOT Central Office. Any misuse of electronic files, including scanned signatures is illegal. Violators will be prosecuted to the full extent of the applicable laws.

Width: 56'-1" face-to-face of curb.

Span layout: 100'-0" simple span steel I-beam with integral abutments.

Capacity: HL-93 loading.

Specifications: Virginia Department of Transportation Road and Bridge Specifications, 2020.

Design: AASHTO LRFD Bridge Design Specifications, 8th Edition, 2017, and VDOT Modifications.

Standards: Virginia Department of Transportation Road and Bridge Standards, 2020; including all current revisions.

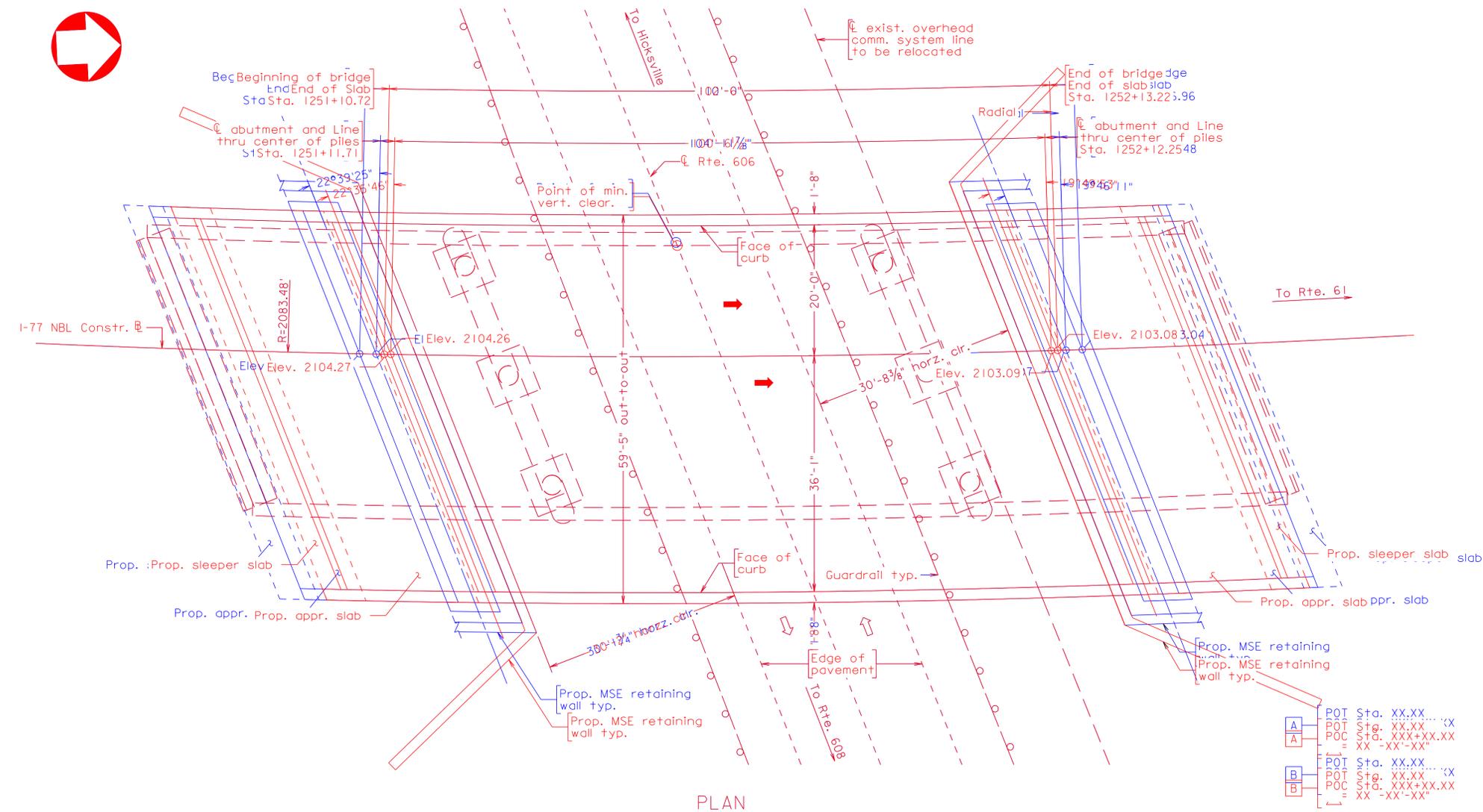
These plans are incomplete unless accompanied by the Supplemental Specifications and Special Provisions included in the contract documents.

Design loading includes 20 psf allowance for construction tolerances and construction methods.

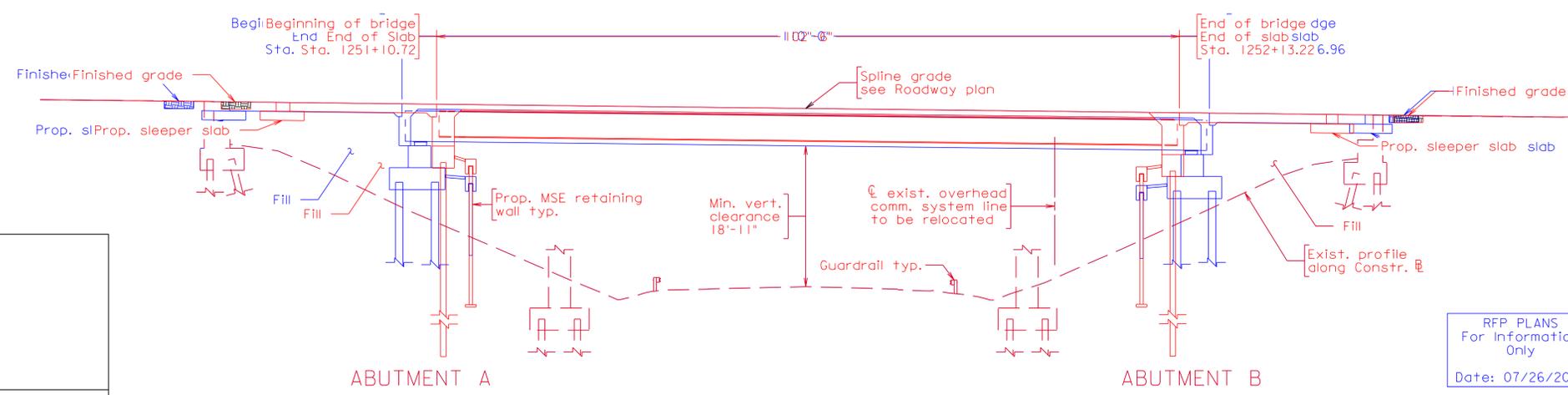
Design loading includes 15 psf allowance for future wearing surface.

Design loading includes 15 psf allowance for future wearing surface.

Bridge No. of existing bridge is 2023. Plan No. is 185-15.



Note to Offerors:
 These plans depict the approximate location and a concept of the proposed structure. The bridge geometrics, span lengths, type and size of superstructure members and substructure elements and maintenance of traffic are to be developed by the offeror.



RFP PLANS
 For Information Only
 Date: 07/26/2022

No.	Description	Date
REVISIONS		
For Table of Revisions, see Sheet 2.		

Recommended for Approval: _____ State Structure and Bridge Engineer Date _____

Approved: _____ Chief Engineer Date _____

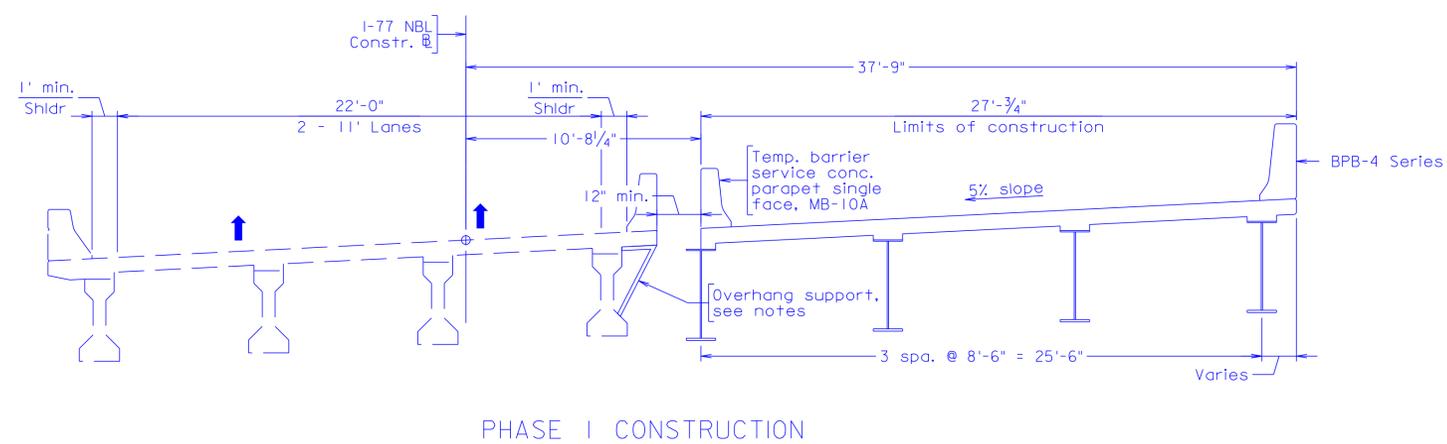
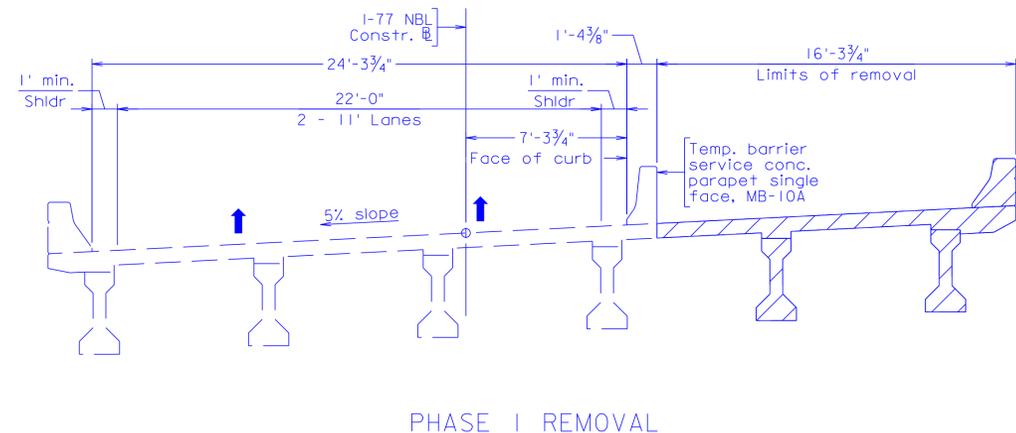
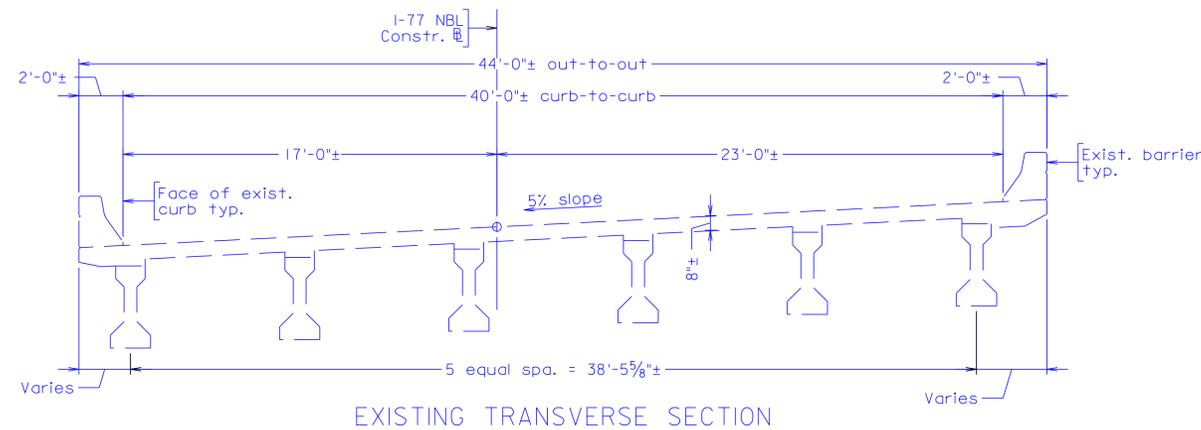
Date: January 26, 2023 © 2022, Commonwealth of Virginia Sheet 1 of 5

#DCNS

E. L. Robinson Eng Virginia Beach VA STRUCTURAL ENGINEER	
PLANS BY:	E. L. Robinson Engineering Co.
COORDINATED:	Robert Leonard, P.E.
SUPERVISED:	Harri A. Esteston, P.E.
DESIGNED:	Jia Xu Collin Hatchett
DRAWN:	Jia Xu Collin Hatchett
CHECKED:	Betty Wang, P.E.

Scale: 1" = 10'-0"

STATE	FEDERAL AID		STATE		SHEET
VA.	ROUTE	PROJECT	ROUTE	PROJECT	NO.
			77	0077-010-834, B644	2



Denotes limits of removal

Notes:
 Minimum of two 11' lanes and 1' shoulders shall be maintained.
 Removal work shall conform to Section 412 of the specifications.
 Existing superstructure is shown schematically and for information purpose only. The Contractor shall field verify the exact location and dimensions of the structure.
 Contractor is responsible for maintaining stability of the piers throughout demolition and construction.
 An overhang support may be required once the temporary barrier is added depending on the sequence of construction implemented by the Contractor.

- Sequence of Construction Notes:
1. Install temporary traffic barrier and shift traffic as shown.
 2. Remove portion of the existing structure.
 3. Construct portion of the proposed structure.
 4. Shift traffic to newly constructed portion of the bridge.
 5. Remove the remaining portion of the existing structure.
 6. Construct the remaining portion of the proposed structure.
 7. Shift traffic lanes to final configuration and open bridge to traffic.

#DCNS

HDR Inc.
 Virginia Beach, VA
 STRUCTURAL ENGINEER

Scale: 1/4" = 1'-0"

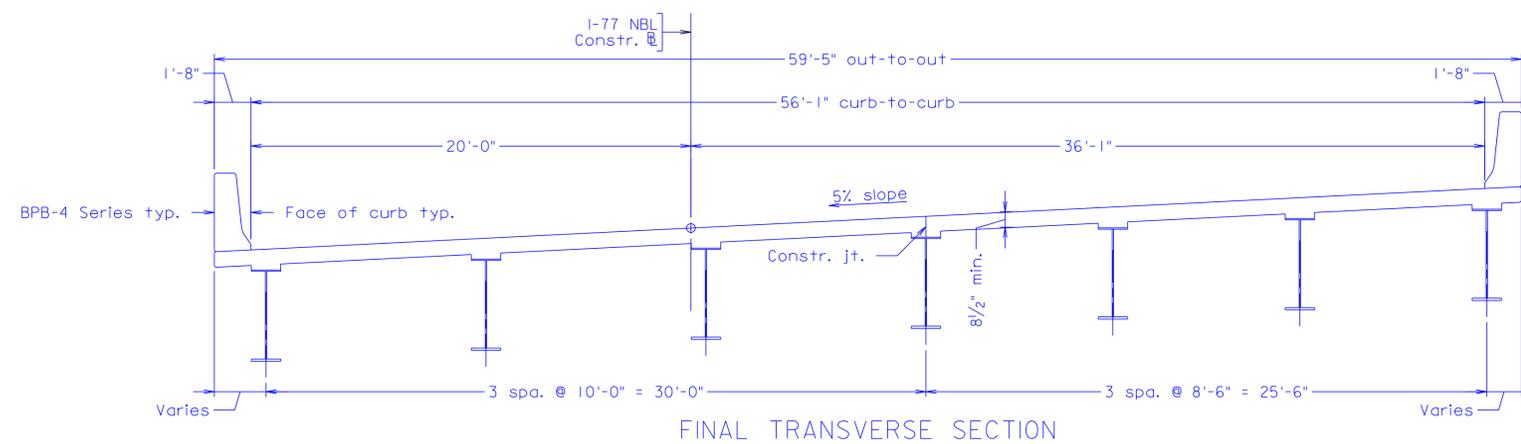
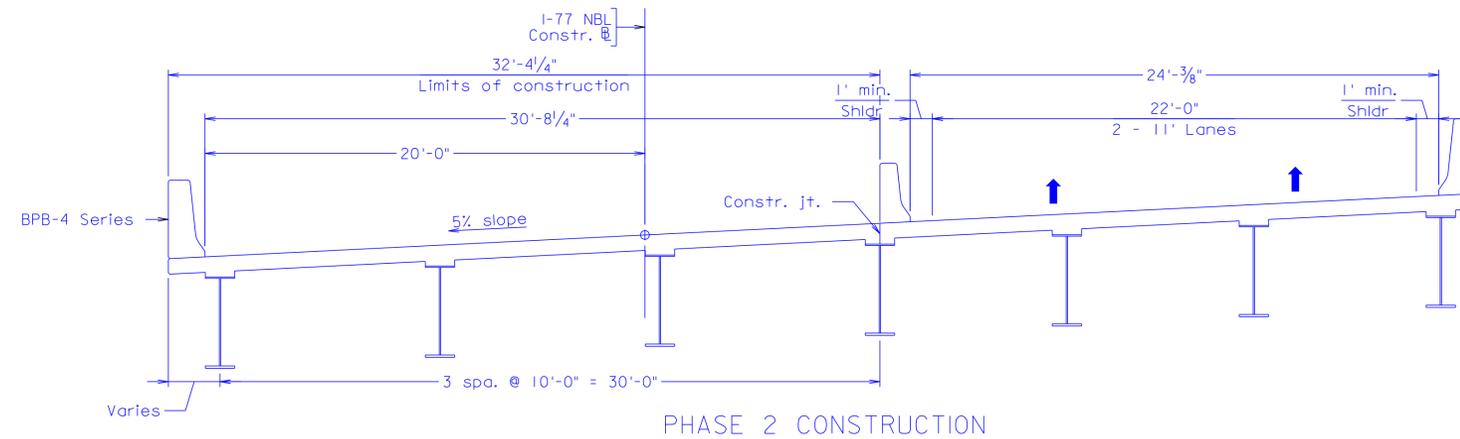
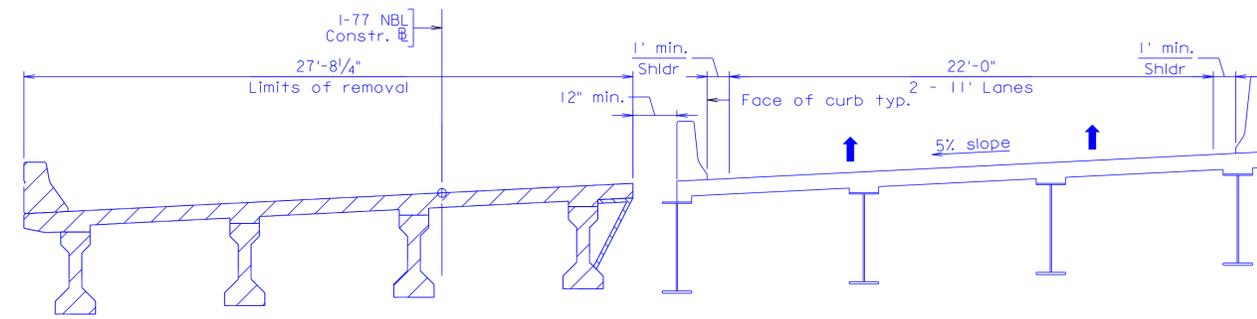
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RFP PLANS
 For Information
 Only
 Date: 07/26/2022

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION					
STRUCTURE AND BRIDGE DIVISION					
I-77 NBL OVER RTE. 606					
SEQUENCE OF CONSTRUCTION					
SHEET 1 OF 2					
No.	Description	Date	Designed: CRH.....	Date	Plan No.
	Revisions		Drawn: CRH.....	July 2022	XXX-XX
			Checked: JWD.....		Sheet No.
					2 of 5

STATE	FEDERAL AID		STATE		SHEET
VA.	ROUTE	PROJECT	ROUTE	PROJECT	NO.
			77	0077-010-834, B644	3

Notes:
For Sequence of Construction notes, see sheet 2.



 Denotes limits of removal

RFP PLANS
For Information
Only
Date: 07/26/2022

HDR Inc.
Virginia Beach, VA
STRUCTURAL ENGINEER

Scale: 1/4" = 1'-0"

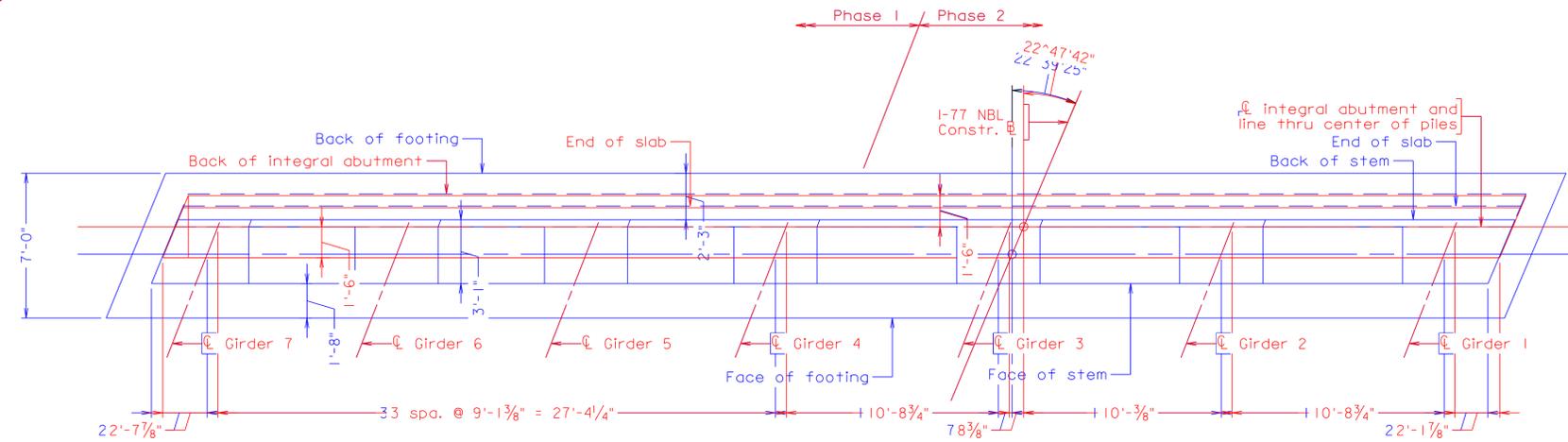
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COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION					
STRUCTURE AND BRIDGE DIVISION					
I-77 NBL OVER RTE. 606 SEQUENCE OF CONSTRUCTION SHEET 2 OF 2					
No.	Description	Date	Designed: CRH.....	Date	Plan No.
			Drawn: CRH.....	July 2022	XXX-XX
			Checked: JWD.....		3 of 5
Revisions					

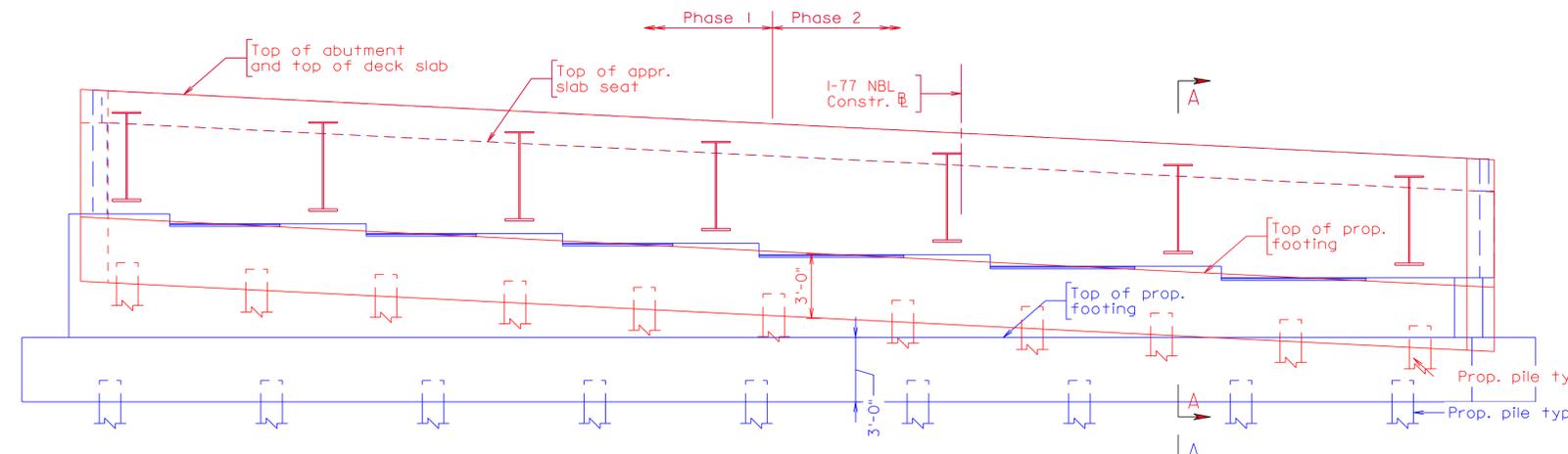


STATE	FEDERAL AID		STATE	SHEET
ROUTE	PROJECT		ROUTE	PROJECT
VA.			77	0077-010-834, B644
				4

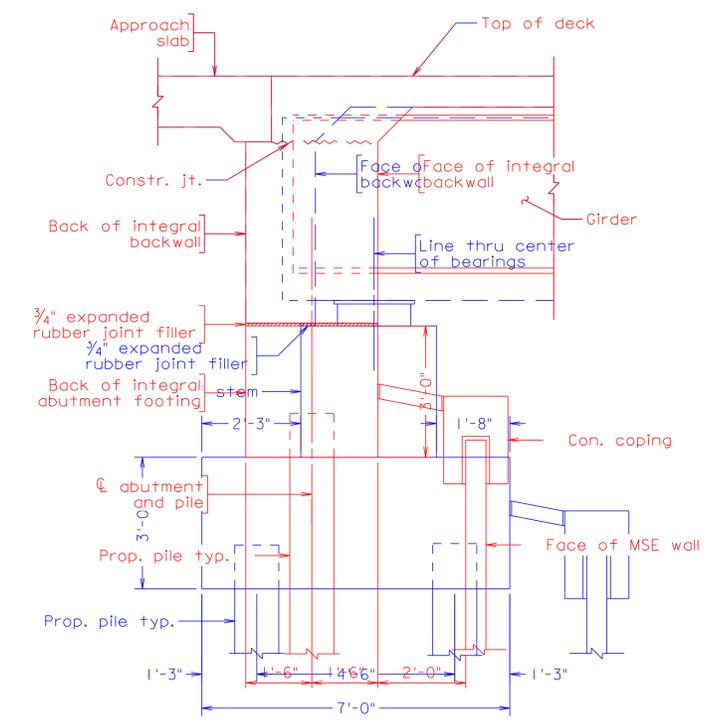
Notes:
Abutment A shown, Abutment B similar.



PLAN



ELEVATION



SECTION A-A
Scale: 1/2" = 1'-0"

\$DCNS

PRELIMINARY PLANS
THESE PLANS NOT TO BE USED
FOR CONSTRUCTION OF BRIDGE

RFP PLANS
For Information
Only
Date: 07/26/2022

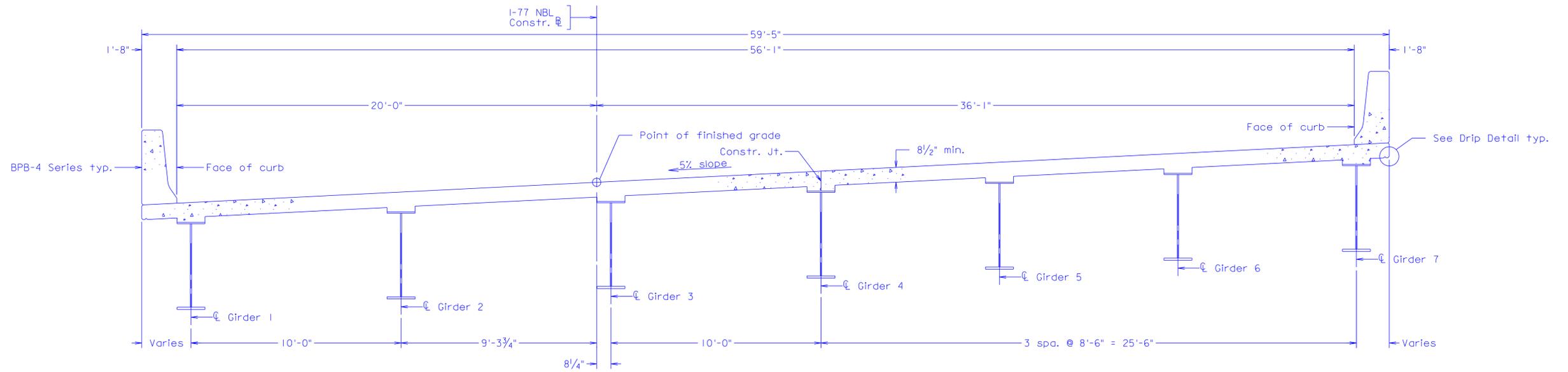
E. L. Robinson, Eng.
Virginia Board of Professional Engineers
STRUCTURAL ENGINEER

Scale: 1/4" = 1'-0" unless otherwise noted

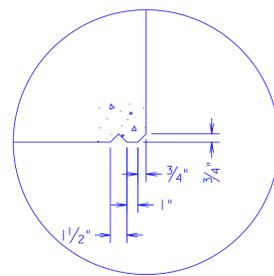
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COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION					
STRUCTURE AND BRIDGE DIVISION					
I-77 NBL OVER RTE. 606 ABUTMENT A PLAN AND ELEVATION					
No.	Description	Date	Designed: ORH.....	Date	Plan No.
			Drawn: ORH.....	July 2022	XXX-XX
			Checked: RBW.....		4 of 5
Revisions					

STATE	FEDERAL AID		STATE		SHEET
VA.	ROUTE	PROJECT	ROUTE	PROJECT	NO.
	—		77	0077-010-834, B644	5



TRANSVERSE SECTION



DRIP DETAIL
Scale: 1/2" = 1'-0"

RFP PLANS
For Information
Only
Date: 07/26/2022

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION					
STRUCTURE AND BRIDGE DIVISION					
I-77 NBL OVER RTE. 606 TRANSVERSE SECTION					
No.	Description	Date	Designed: CBH.....	Date	Plan No.
			Drawn:CBH.....	July 2022	XXX-XX
			Checked:CBH.....		5 of 5
Revisions					

HDR Inc.
Virginia Beach, VA
STRUCTURAL ENGINEER

Scale: 3/8" = 1'-0" unless otherwise shown

© 2022, Commonwealth of Virginia

STATE	FEDERAL AID	STATE	SHEET NO.
VA.	PROJECT	ROUTE	PROJECT
	NHFP-077-2(321)	77	0077-010-834, B644
Federal Structure No. 0000000031578		FHWA Construction and Scour Code: X271-SN	
Federal Stewardship and Oversight Code: F0		UPC No. 117110	

GENERAL NOTES:

The original approved sheet, including original signatures, is filed in the VDOT Central Office. Any misuse of electronic files, including scanned signatures is illegal. Violators will be prosecuted to the full extent of the applicable laws.

Width: 56'-1" face-to-face of curb.

Span layout: 102'-6" simple span steel rolled beam with integral abutments.

Capacity: HL-93 loading.

Specifications:

Construction: Virginia Department of Transportation Road and Bridge Specifications, 2020.

Design: AASHTO LRFD Bridge Design Specifications, 8th Edition, 2017; and VDOT Modifications.

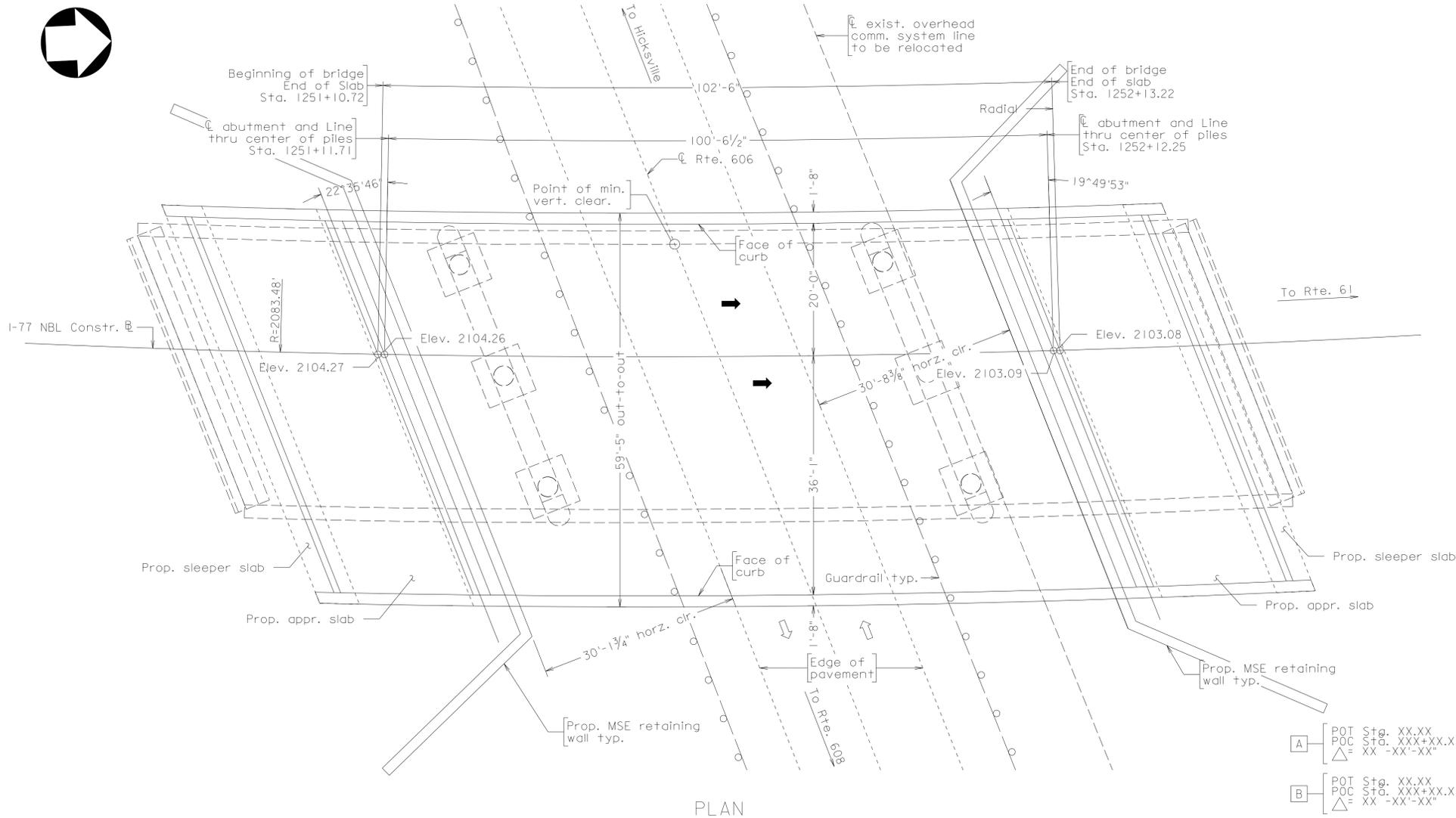
Standards: Virginia Department of Transportation Road and Bridge Standards, 2020; including all current revisions.

These plans are incomplete unless accompanied by the Supplemental Specifications and Special Provisions included in the contract documents.

Design loading includes 20 psf allowance for construction tolerances and construction methods.

Design loading includes 15 psf allowance for future wearing surface.

Bridge No. of existing bridge is 2023. Plan No. is 185-15.



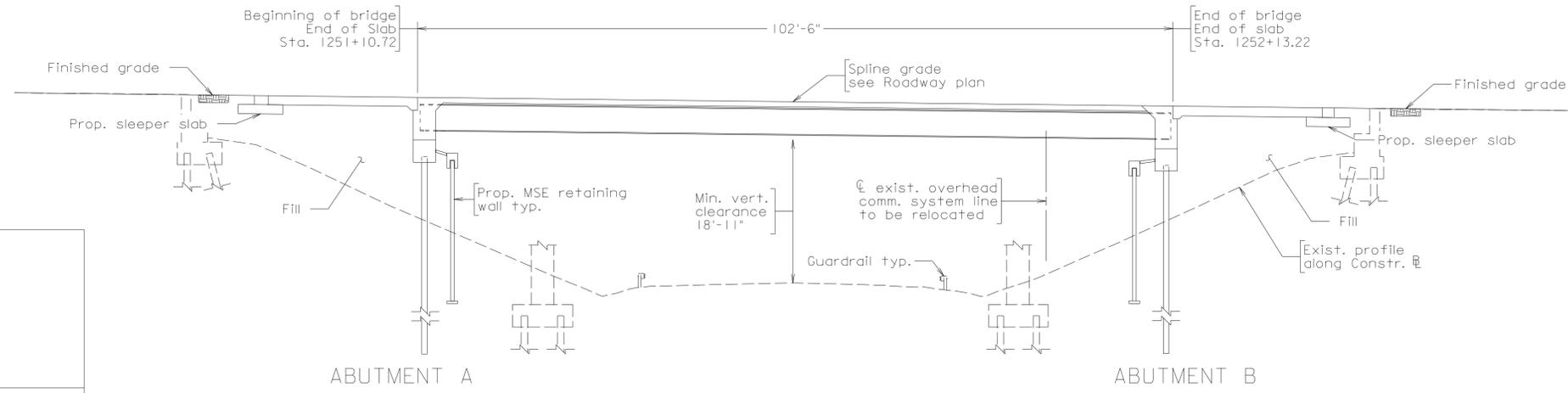
A	POT Stg. XX.XX POC Stg. XXX+XX.XX Δ = XX'-XX'-XX"
B	POT Stg. XX.XX POC Stg. XXX+XX.XX Δ = XX'-XX'-XX"

PRELIMINARY PLANS
THESE PLANS NOT TO BE USED
FOR CONSTRUCTION OF BRIDGE



COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

PROPOSED BRIDGE REPLACEMENT
I-77 NBL OVER RTE. 606
BLAND COUNTY
2.0 MI. S. OF I-77 NBL OVER RTE. 61
PROJ. 0077-010-834, B644



No.	Description	Date
REVISIONS		
For Table of Revisions, see Sheet 2.		

Recommended for Approval: _____ Date _____
State Structure and Bridge Engineer

Approved: _____ Date _____
Chief Engineer

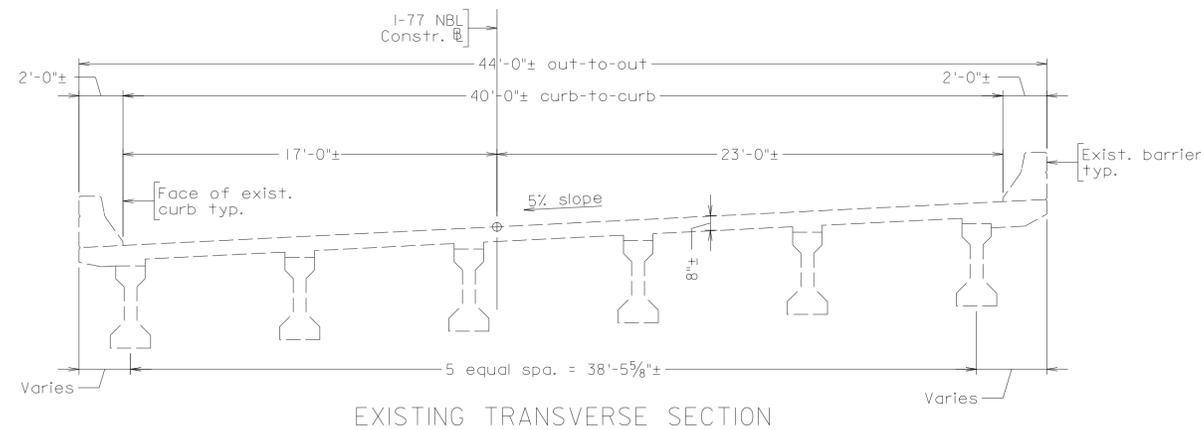
Date: January 12, 2022 © 2022, Commonwealth of Virginia Sheet 1 of 5

EDCNS

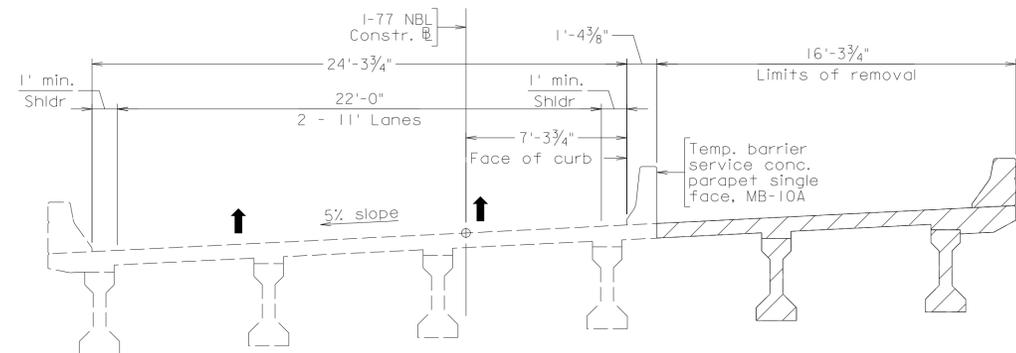
E. L. Robinson Eng Chantilly, VA STRUCTURAL ENGINEER	
PLANS BY:	E. L. Robinson Engineering Co.
COORDINATED:	
SUPERVISED:	Harí Amíndola, P.E.
DESIGNED:	Jia Xu
DRAWN:	Jia Xu
CHECKED:	Betty Waggoner, P.E.

Scale: 1" = 10'-0"

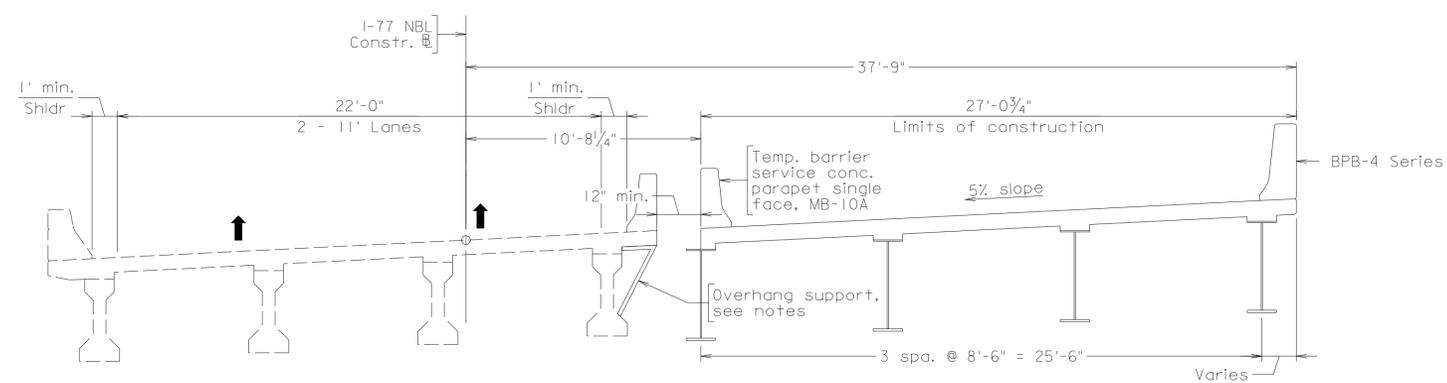
STATE	FEDERAL AID		STATE		SHEET
VA.	ROUTE	PROJECT	ROUTE	PROJECT	NO.
	—		77	0077-010-834, B644	2



EXISTING TRANSVERSE SECTION



PHASE I REMOVAL



PHASE I CONSTRUCTION

Denotes limits of removal

Notes:

- Minimum of two 11' lanes and 1' shoulders shall be maintained.
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- Contractor is responsible for maintaining stability of the piers throughout demolition and construction.
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Sequence of Construction Notes:

1. Install temporary traffic barrier and shift traffic as shown.
2. Remove portion of the existing structure.
3. Construct portion of the proposed structure.
4. Shift traffic to newly constructed portion of the bridge.
5. Remove the remaining portion of the existing structure.
6. Construct the remaining portion of the proposed structure.
7. Shift traffic lanes to final configuration and open bridge to traffic.

PRELIMINARY PLANS
THESE PLANS NOT TO BE USED
FOR CONSTRUCTION OF BRIDGE

#DCGN\$

E L Robinson Eng
Chantilly, VA
STRUCTURAL ENGINEER

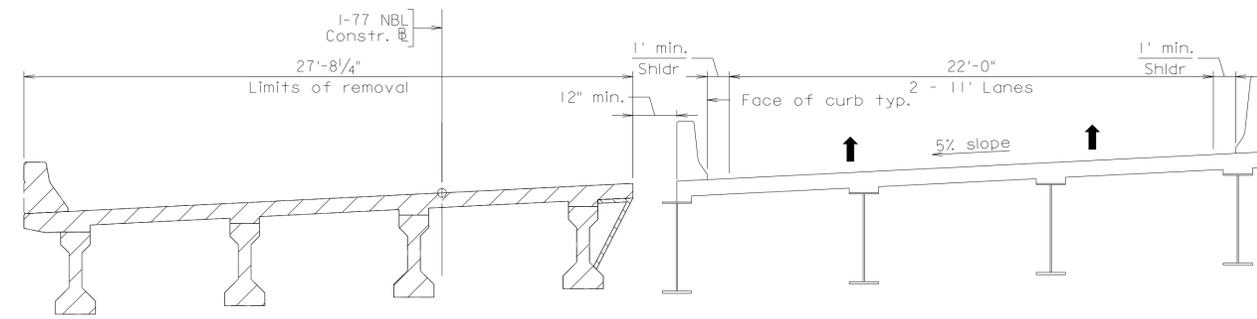
Scale: 1/4" = 1'-0"

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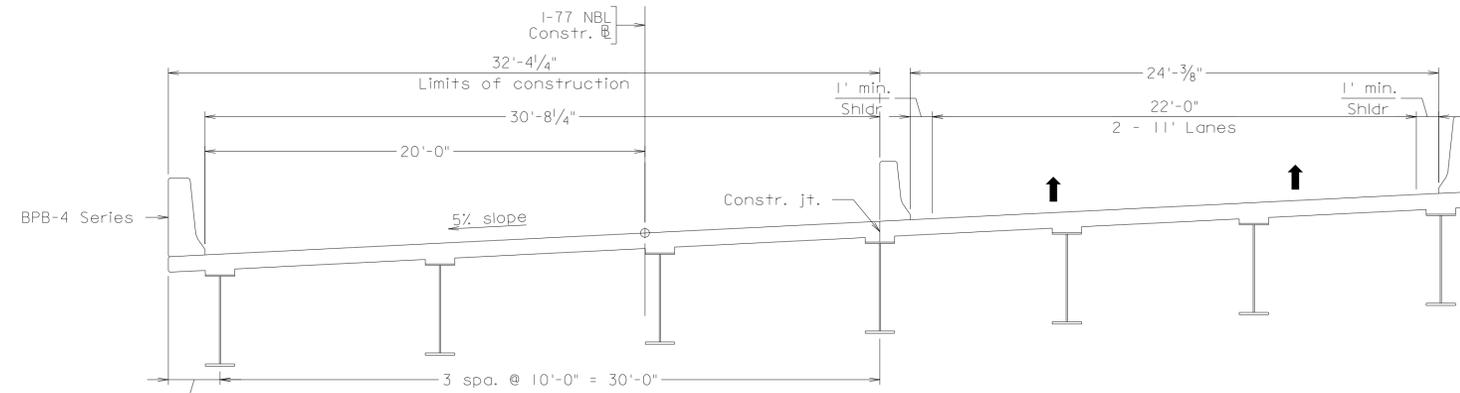
COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION					
STRUCTURE AND BRIDGE DIVISION					
I-77 NBL OVER RTE. 606 SEQUENCE OF CONSTRUCTION SHEET 1 OF 2					
No.	Description	Date	Designed: CRH.....	Date	Plan No.
			Drawn: CRH.....	Jan 2023	XXX-XX
			Checked: JWD.....		2 of 5

STATE	FEDERAL AID		STATE	SHEET
VA.	ROUTE	PROJECT	ROUTE	NO.
	—		77	3
			0077-010-834, B644	

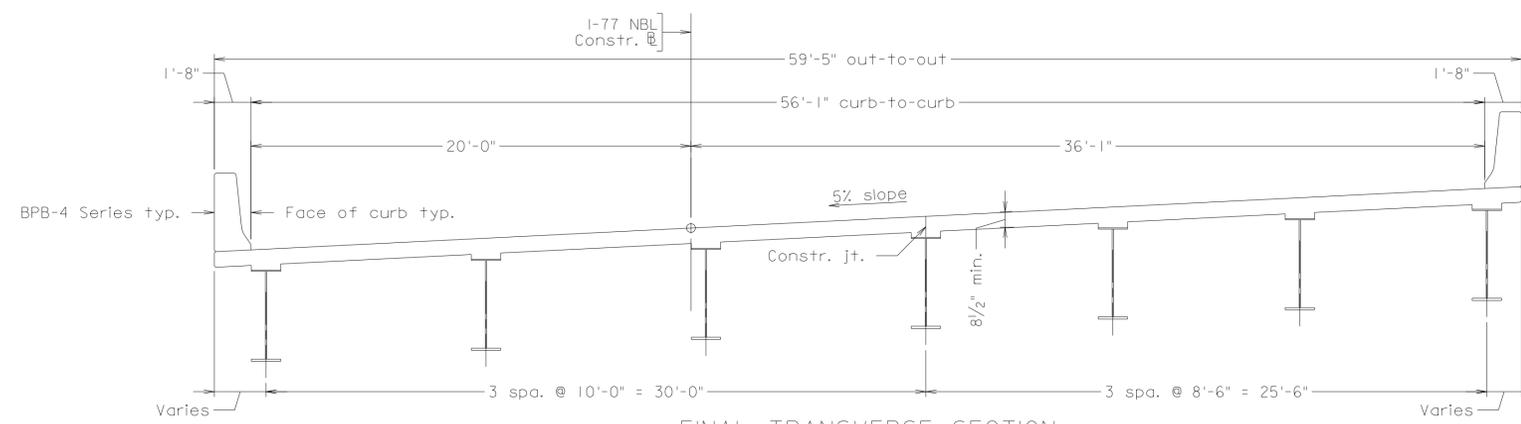
Notes:
For Sequence of Construction notes, see sheet 2.



PHASE 2 REMOVAL



PHASE 2 CONSTRUCTION



FINAL TRANSVERSE SECTION

 Denotes limits of removal

PRELIMINARY PLANS
THESE PLANS NOT TO BE USED
FOR CONSTRUCTION OF BRIDGE

#DCGS

E L Robinson Eng
Chantilly, VA
STRUCTURAL ENGINEER

Scale: 1/4" = 1'-0"

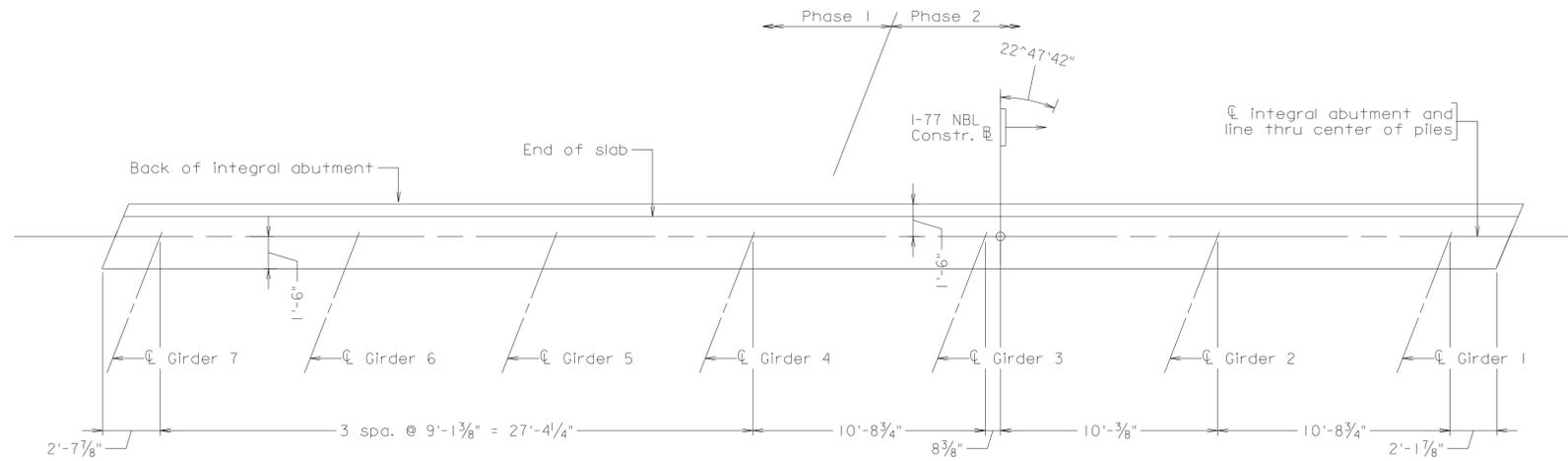
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COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION					
STRUCTURE AND BRIDGE DIVISION					
I-77 NBL OVER RTE. 606					
SEQUENCE OF CONSTRUCTION					
SHEET 2 OF 2					
No.	Description	Date	Designed: CRH.....	Date	Plan No.
			Drawn: CRH.....	Jan 2023	XXX-XX
			Checked: JWD.....		3 of 5
Revisions					

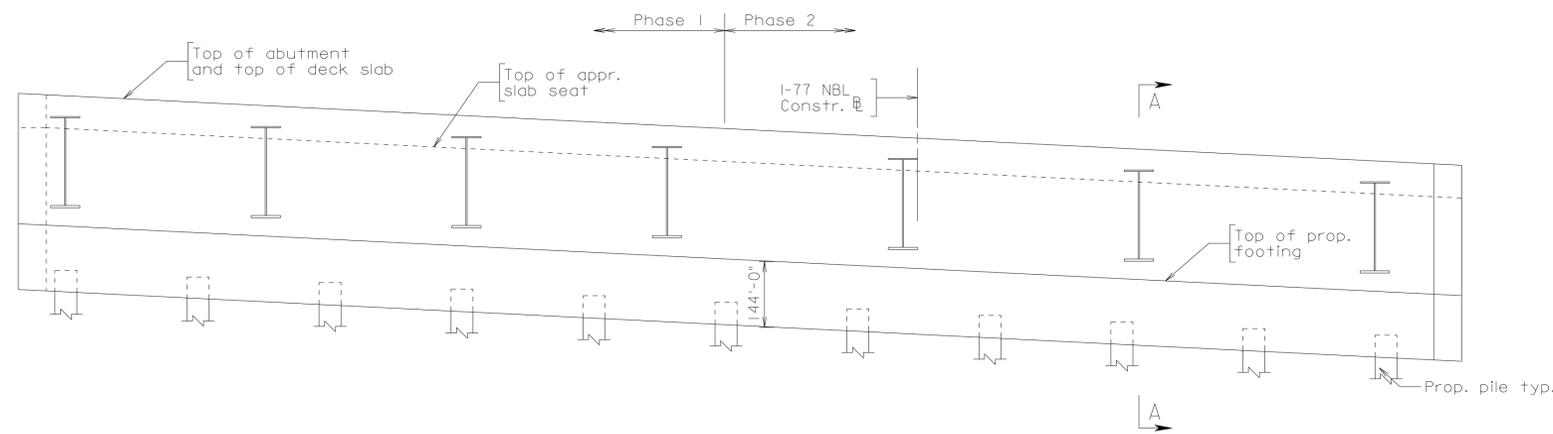


STATE	FEDERAL AID		STATE		SHEET
ROUTE	PROJECT		ROUTE	PROJECT	NO.
VA.			77	0077-010-834, B644	4

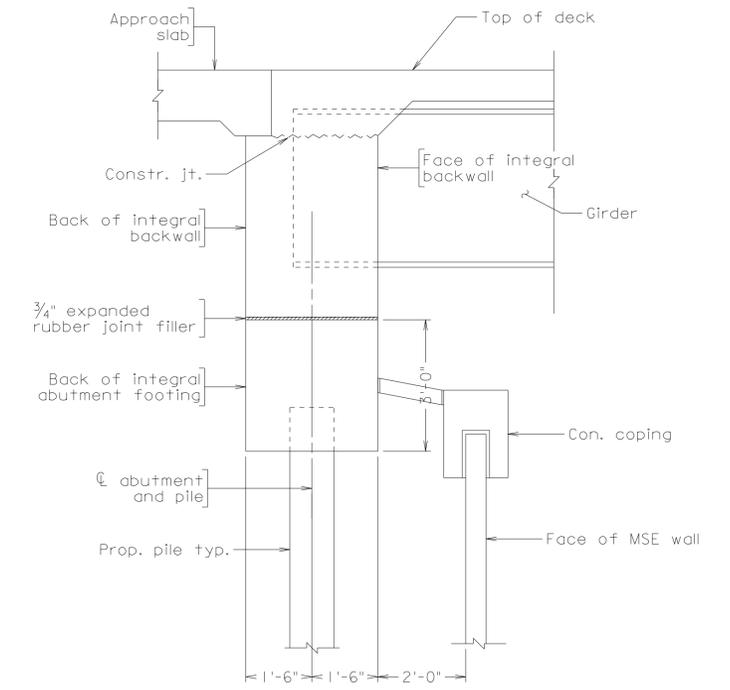
Notes:
Abutment A shown, Abutment B similar.



PLAN



ELEVATION



SECTION A-A
Scale: 1/2" = 1'-0"

PRELIMINARY PLANS
THESE PLANS NOT TO BE USED
FOR CONSTRUCTION OF BRIDGE

#DCGNS

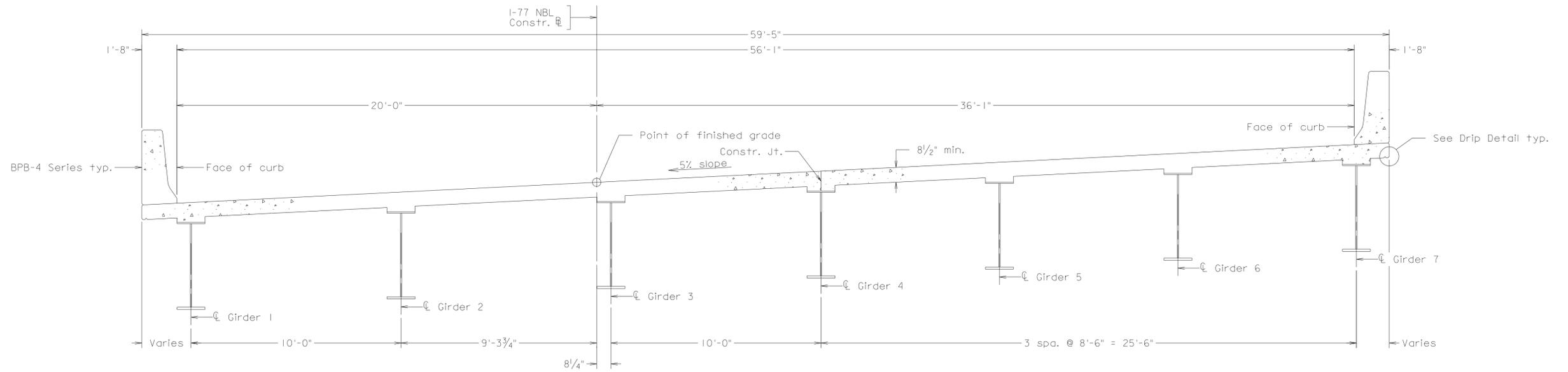
E L Robinson Eng
Chantilly, VA
STRUCTURAL ENGINEER

Scale: 1/4" = 1'-0" unless otherwise noted

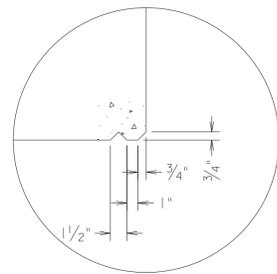
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COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION					
STRUCTURE AND BRIDGE DIVISION					
I-77 NBL OVER RTE. 606 ABUTMENT A PLAN AND ELEVATION					
No.	Description	Date	Designed: JX..... Drawn: JX..... Checked: BRW.....	Date	Plan No.
Revisions				Jan 2023	XXX-XX
					Sheet No. 4 of 5

STATE	FEDERAL AID		STATE		SHEET
ROUTE	PROJECT		ROUTE	PROJECT	NO.
VA.			77	0077-010-834, B644	5



TRANSVERSE SECTION



DRIP DETAIL
Scale: 1/2" = 1'-0"

RFP PLANS
For Information
Only
Date: 07/26/2022

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION					
STRUCTURE AND BRIDGE DIVISION					
I-77 NBL OVER RTE. 606 TRANSVERSE SECTION					
No.	Description	Date	Designed: CRH.....	Date	Plan No.
			Drawn: CRH.....	Jan 2023	XXX-XX
			Checked: JWD.....		5 of 5
Revisions					

E L Robison Eng
Chantilly, VA
STRUCTURAL ENGINEER

Scale: 3/8" = 1'-0" unless otherwise shown

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Response to Request for Proposals

PRICE PROPOSAL

I-77 over Route 606 Bridge Replacement

Bland County, Virginia

State Project No.: 0077-010-834, P101, C501, B644

Federal Project No.: NHFP-077-2(341)

Contract ID No.: C00117110DB115

*Submitted by: Brayman Construction Corporation
with E.L. Robinson Engineering*



ATTACHMENT 4.0.1.2

**DESIGN-BUILD PRICE PROPOSAL
CHECKLIST**

**Project Name: I-77 over Route 606 Bridge Replacement
Contract ID Number: C00117110DB115**

➤ **Contents of Price Proposal:**

- Cost Breakdown Summary in whole numbers and the Proposal Price, in both numbers and words (Part 1, Attachment 4.3.1)**
 - Price Adjustment Information and Forms for Asphalt, Fuel and Steel, including identification of pay items and associated quantities eligible for adjustment (Part 3, Section 6.3, Attachments 6.3(a), 6.3(c), and 6.3(d))**
 - Proposal Guaranty (C-24) required by Section 102.07 of Part 5, Division I Amendments to the Standard Specifications**
 - Sworn Statement Forms C-104 and C-105 (Part 1, Attachments 4.3.4(a) and 4.3.4(b))**
-

4.3.1: Cost Breakdown Summary



ATTACHMENT 4.3.1

PRICE PROPOSAL FORM

4.3.1 Offeror shall specify the pricing information for the items below, the dollars amount shall be in whole numbers:

Price Proposal Cost Breakdown Summary;

Design Services, LS	\$ <u>925,000.00</u>
Construction Services (exclude QA/QC), LS	\$ <u>9,505,683.00</u>
Quality Assurance (QA) (Construction), LS	\$ <u>540,000.00</u>
Quality Control (QC) (Construction), LS	\$ <u>440,000.00</u>

Proposal Price; (Specify the Total Lump Sum price in both numbers and words, this price shall **equal** to the total sum of the items listed above)

Lump Sum (LS): Eleven Million Four Hundred Ten Thousand Six
Hundred Eighty Three Dollars and Zero Cents (\$11,410,683.00)

Signature:  Date: 1/18/23

Design-Builder: Brayman Construction Corporation

Vendor No.: B873

4.3.2: Price Adjustment Forms



EXHIBIT 6.3(a)
ADJUSTMENT FOR ASPHALT

SPECIAL PROVISION FOR
ASPHALT MATERIAL PRICE ADJUSTMENT for DESIGN-BUILD PROJECTS

June 26, 2018

All asphalt material listed in the attached “Asphalt Material Items Eligible for Price Adjustment” will be adjusted in accordance with the provisions as set forth herein. Other items will not be adjusted, except as otherwise specified in the contract. Any item added through a Work Order which contains asphalt material will not be subject to Price Adjustment unless specifically designated in the Work Order to be subject to Price Adjustment.

Each month, the Department will publish an average state-wide PG 64S-22 f.o.b. price per ton and an average PG 64E-22 f.o.b. price per ton developed from the average terminal prices provided to the Department from suppliers of asphalt cement to contractors doing work in Virginia. The Department will collect terminal prices from approximately 12 terminals each month. These prices will be received once each month from suppliers on or about the last weekday of the month. The high and low prices will be eliminated and the remaining values averaged to establish the average statewide price for the following month. That monthly state-wide average price will be posted on the Construction Division website on or about the first weekday of the following month. In the event the average prices were to change 10 percent or more of the Base Index during the middle of the month, the Design Builder can submit a letter to the Department and the supplier that provides evidence of the difference in price. Upon receipt of the letter consideration will be given to extend additional adjustments as deemed necessary.

This monthly statewide average price will be the Base Index for all contracts on which Price Proposals are received during the calendar month of its posting and will be the Current Index for all asphalt placed during the calendar month of its posting. In the event an index changes radically from the apparent trend, as determined by the Engineer, the Department may establish an index which is determined to best reflect the trend.

The amount of adjustment applied will be based on the difference between the Price Proposal/Contract Base Index and the Current Index for the applicable calendar month during which the work is performed. Calculations must be done for each type of Asphalt Material put in place each month, whether the Current Index is higher or lower than the Base Index. The calculation for the adjustment shall be shown as follows:

$$A = Q \times \%AC \times IC$$

Where: A = Asphalt Adjustment Dollar Amount

Q = Quantity of Asphalt Material put in place during the month

%AC = % of Asphalt Cement in the Asphalt Material as specified in the Job Mix Formula

IC = Numeric Dollar Difference, either positive or negative, between the Base Index and Current Index

Example Calculation for Negative Price Adjustment (Credit back to VDOT):

7,500 Tons of SM-12.5A put in place during the month (Q), Job Mix is 6.1% Asphalt Cement for SM-12.5A (%AC), Base Index for the Contract is \$515/Ton, Current Index is \$500/Ton, Difference of - \$15.00/Ton (IC)

$$7,500 \text{ Tons SM-12.5A} \times 6.1\% \times -\$15.00/\text{Ton} = -\$6,862.50 \text{ Adjustment Amount}$$

Example Calculation for Positive Price Adjustment (Paid to the Design-Builder):

10,000 Tons of BM-25.0A put in place during the month (Q), Job Mix is 5.2% Asphalt Cement for BM-25.0A (%AC), Base Index for the Contract is \$515/Ton, Current Index is \$560/Ton, Difference of + \$45.00/Ton (IC)

$$10,000 \text{ Tons BM-25.0A} \times 5.2\% \times \$45.00/\text{Ton} = +\$23,400.00 \text{ Adjustment Amount}$$

Adjustment of any asphalt material other than PG 64S-22 and PG 64E-22 will be based on the indexes for PG 64S-22. The quantity of asphalt cement for asphalt concrete pavement to which adjustment will be applied will be the quantity based on the percent of asphalt cement shown on the appropriate approved job mix formula.

The quantity of asphalt emulsion for surface treatments to which adjustment will be applied will be the quantity based on 65 percent residual asphalt.

Price adjustment will be shown as a separate entry on the monthly application of payment for work packages completed; however, such adjustment will not be included in the total cost of the work for progress determination or for extension of contract time. Items the Design-Builder claims in its application of payment for asphalt adjustments must include supporting calculations certified by the Quality Assurance Manager (QAM). These calculations shall be completed relative to the calendar month under which the work was performed and shall be submitted for either positive or negative adjustment.

Any apparent attempt to unbalance bids in favor of items subject to price adjustment or failure to submit required cost and price data as noted hereinbefore may result in rejection of items for asphalt adjustment.

**VIRGINIA DEPARTMENT OF TRANSPORTATION
 MASTER LISTING OF
 ASPHALT MATERIAL ITEMS ELIGIBLE FOR PRICE ADJUSTMENT**

ITEM	DESCRIPTION	UNITS	SPECIFICATION
10062	Asphalt-Stab. Open-Graded Material	Ton	313
10416	Liquid Asphalt	Gal	311 312
10417	Tack Coat	Gal	310
10420	Blotted Seal Coat Ty. B	Sy	ATTD
10422	Blotted Seal Coat Ty. C	Sy	ATTD
10423	Blotted Seal Coat Ty. C-1	Sy	ATTD
10424	Blotted Seal Coat Ty. D	Sy	ATTD
10598	NS Asphalt Concrete	Ton	315
10603	Asphalt Concrete Ty. SM-19.0A	Ton	315
10604	Asphalt Concrete Ty. SM-19.0D	Ton	315
10605	Asphalt Concrete Ty. SM-19.0E (64E)	Ton	315
10606	Asphalt Concrete Ty. SM-9.5	Ton	315
10607	Asphalt Concrete Ty. SM-12.5A	Ton	315
10608	Asphalt Concrete Ty. SM-12.5D	Ton	315
10609	Asphalt Concrete Ty. SM-12.5E (64E-22)	Ton	315
10610	Asphalt Concrete Ty. IM-19.0A	Ton	315
10611	Asphalt Concrete Ty. IM-19.0D	Ton	315
10612	Asphalt Conc. Base Cr. Ty. BM-25.0	Ton	315
10614	Asphalt Concrete Ty. IM-19.0E (64E)	Ton	315
10613	Asphalt Concrete Ty. BM-37.5	Ton	315
10635	Asphalt Concrete Ty. SM-9.5A	Ton	315
10636	Asphalt Concrete Ty. SM-9.5D	Ton	315
10637	Asphalt Concrete Ty. SM-9.5E (64E-22)	Ton	315
10639	Asphalt Concrete Ty. SM-19.0	Ton	315
10642	Asphalt Concrete Ty. BM-25.0A	Ton	315
10643	Asphalt Concrete Ty. BM-25.0D	Ton	315
10650	Stone Matrix Asphalt SMA-9.5(64H-22)	Ton	317
10651	Stone Matrix Asphalt SMA-9.5(64E-22)	Ton	317
10652	Stone Matrix Asphalt SMA-12.5(64H-22)	Ton	317
10653	Stone Matrix Asphalt SMA-12.5(64E-22)	Ton	317
10654	Stone Matrix Asphalt SMA-19.0(64H-22)	Ton	317
10655	Stone Matrix Asphalt SMA-19.0(64E-22)	Ton	317
10701	Liquid Asphalt Coating	Sy	ATTD
12505	Asphalt Concrete Curb Backup Material	Ton	315
13240	Asphalt Concrete Sidewalk	Ton	504
16110	Emul. Asph. Slurry Seal Type A	Sy	ATTD
16120	Emul. Asph. Slurry Seal Type B	Sy	ATTD
16130	Emul. Asph. Slurry Seal Type C	Sy	ATTD
16144	Latex Mod. Emul. Treat. Type B	Ton	ATTD
16145	Latex Mod. Emul. Treat. Type C	Ton	ATTD

16146	Latex Mod. Emul. Treat. Rutfilling	Ton	ATTD
16161	Modified Single Seal	Sy	ATTD
16162	Modified Double Seal	Sy	ATTD
16249	Nontracking Tack Coat	Gal.	ATTD
16250	Liquid Asphalt Matl. CMS-2 (Mod)	Gal	ATTD
16251	Liquid Asphalt Matl. CMS-2	Gal	ATTD
16252	Liquid Asphalt Matl. CRS-2	Gal	ATTD
16253	Liquid Asphalt Matl. CRS-2H	Gal.	ATTD.
16254	Liquid Asphalt Matl. RC-250	Gal	ATTD
16256	Liquid Asphalt Matl. RC-800	Gal	ATTD
16257	Ns Liquid Asphalt Matl.	Gal	ATTD
16260	Liquid Asphalt Matl. CRS-2L	Gal	ATTD
16325	NS Asphalt Concrete	Ton	N/A
16326	Asphalt Concrete Ty. SM-4.75A	Ton	315
16327	Asphalt Concrete Ty. SM-4.75D	Ton	315
16328	Asphalt Concrete Ty. SM-4.75E	Ton	315
16330	Asphalt Concrete Ty. SM-9.0A	Ton	315
16335	Asphalt Concrete Ty. SM-9.5A	Ton	315
16337	Asph. Conc. Ty. SM-9.5ASL (Spot Level)	Ton	315
16340	Asphalt Concrete Ty. SM-9.5D	Ton	315
16342	Asph. Conc. Ty. SM-9.5DSL (Spot Level)	Ton	315
16345	Asphalt Concrete Ty. SM-9.5E (64E-22)	Ton	315
16350	Asphalt Concrete Ty. SM-12.5A	Ton	315
16352	Asph. Con. Ty. SM-12.5ASL (Spot Level)	Ton	315
16355	Asphalt Concrete Ty. SM-12.5D	Ton	315
16357	Asph. Con. Ty. SM-12.5DSL (Spot Level)	Ton	315
16360	Asphalt Concrete Ty. SM-12.5E (64E-22)	Ton	315
16364	Asphalt Concrete Ty. SM-19.0E (64E)		
16365	Asphalt Concrete Ty. IM-19.0A	Ton	315
16370	Asphalt Concrete Ty. IM-19.0D	Ton	315
16371	Asphalt Concrete Ty. IM-19.0E (64E)		
16373	Asphalt Concrete Ty. IM-19.0A (T)	Ton	315
16374	Asphalt Concrete Ty. IM-19.0D (T)	Ton	315
16377	Asphalt Concrete Ty. BM-37.5	Ton	315
16379	Asphalt Concrete Ty. IM-19.0T	Ton	315
16390	Asphalt Concrete Ty. BM-25.0A	Ton	315
16392	Asphalt Concrete Ty. BM-25.0D	Ton	315
16395	Asphalt Concrete Ty. BM-25.0A (T)	Ton	315
16397	Asphalt Concrete Ty. BM-25.0D (T)	Ton	315
16400	Stone Matrix Asphalt SMA-9.5(64H-22)	Ton	ATTD
16401	Stone Matrix Asphalt SMA-9.5(64E-22)	Ton	ATTD
16402	Stone Matrix Asphalt SMA-12.5(64H-22)	Ton	ATTD
16403	Stone Matrix Asphalt SMA-12.5(64E-22)	Ton	ATTD
16404	Stone Matrix Asphalt SMA-19.0(64H-22)	Ton	ATTD
16405	Stone Matrix Asphalt SMA-19.0(64E-22)	Ton	ATTD
16490	Hot Mix Asphalt Treatment	Ton	ATTD
16500	Surf.Preparation & Restoration Type I	Ton	ATTD

16502	Surf.Preparation & Restoration Type II	Ton	ATTD
16504	Surf.Preparation & Restoration Type III	Ton	ATTD
67201	NS Asphalt Concrete Overlay	Ton	315
67210	NS Asphalt Concrete	Ton	315
68240	NS Asphalt Concrete	Ton	315

**EXHIBIT 6.3 (c)
ADJUSTMENT FOR FUEL**

**VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
OPTIONAL ADJUSTMENT FOR FUEL
DESIGN-BUILD PROJECTS**

June 26, 2018

In the event the Design-Builder elects to seek adjustment for fuel items designated in the Price Proposal/Contract as Price Adjustment Items such items will be subject to price adjustment as set forth herein. Other items will not be adjusted, except as otherwise specified in the contract.

The Design-Builder shall submit their monthly application for payment associated with eligible work packages with an adjustment up or down as appropriate for cost changes in fuel used on specific items of work identified in this provision. The optional fuel item listing eligible for fuel adjustment is provided by the Department at this website: <http://www.virginiadot.org/business/const/resource.asp>. The listing on the web site also includes the corresponding fuel factor for each item. The fuel usage factor for each item is considered inclusive of all fuel usage.

In order to be eligible for fuel adjustment under this provision, the Design-Builder shall clearly identify in the Schedule of Items those pay items and the associated quantities it chooses to have fuel adjustment applied to in its work packages. Items the Design-Builder claims in its application of payment for fuel adjustments must be properly designated in order to be considered for adjustment. Items not properly designated or left out of the Design-Builder's Schedule of Items shall not be considered for adjustment.

The monthly index price to be used in the administration of this provision will be calculated by the Department from the Diesel fuel prices published by the U. S. Department of Energy, Energy Information Administration on highway diesel prices, for the Lower Atlantic region. The monthly index price will be the price for diesel fuel calculated by averaging each of the weekly posted prices for that particular month.

For the purposes of this provision, the base index price will be calculated using the data from the month preceding the receipt of bids. The base index price will be posted by the Department at the beginning of the month for all bids received during that month.

The current index price will be posted by the Department and will be calculated using the data from the month preceding the particular estimate being vouchered for payment.

The current monthly quantity for eligible items of work selected by the Design-Builder for fuel adjustment in its work packages will be multiplied by the appropriate fuel factor to determine the gallons of fuel to be cost adjusted. The amount of adjustment per gallon will be the net difference between the current index price and the base index price. Computation for adjustment will be made as follows:

$$S = (E - B) QF$$

Where; S = Monetary amount of the adjustment (plus or minus)
B = Base index price
E = Current index price
Q = Quantity of individual units of work
F = Appropriate fuel factor

Adjustments will not be made for work performed beyond the original contract time limit unless the original time limit has been changed by an executed Work Order.

If new pay items are added to this contract by Work Order and they are listed in the Department's master listing of eligible items, the Work Order must indicate which of these individual items will be fuel adjusted; otherwise, those items will not be fuel adjusted. If applicable, designating which new pay items will be added for fuel adjustment must be determined during development of the Work Order and clearly shown on the Work Order form. The Base Index price on any new eligible pay items added by Work Order will be the Base Index price posted for the month in which bids were received for that particular project. The Current Index price for any new eligible pay items added by Work Order will be the Index price posted for the month preceding the estimate on which the Work Order is paid.

When quantities differ between the last monthly application of payment prepared upon final acceptance and the final application of payment, adjustment will be made using the appropriate current index for the period in which that specific item of work was last performed.

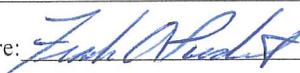
In the event any of the base fuel prices in this contract increase more than 100 percent (i.e. fuel prices double), the Department will review each affected item of work and give the Design-Builder written notice if work is to stop on any affected item of work. The Department reserves the right to reduce, eliminate or renegotiate the price for remaining portions of affected items of work.

Any amounts resulting from fuel adjustment will not be included in the total cost of work for determination of progress or for extension of contract time.

I elect to use this provision

I elect not to use this provision

Date: 1/18/23

Signature: 

Design-builder: Brayman Construction Corporation

Vendor No.: B873

**EXHIBIT 6.3(d)
ADJUSTMENT FOR STEEL**

**VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
PRICE ADJUSTMENT FOR STEEL
DESIGN-BUILD PROJECTS**

June 6, 2018

In the event the Design-Builder elects to seek adjustment for steel items designated in the Price Proposal/Contract as Price Adjustment Items such items will be subject to price adjustment as set forth herein. If new pay items which involve steel are established by Work Order, they will not be subject to Price Adjustment unless specifically designated in the Work Order to be subject to Price Adjustment.

The Design-Builder will submit their monthly application for payment associated with eligible work packages with an adjustment up or down as appropriate for cost changes in steel used on specific items of work identified in the Price Proposal/contract in accordance with this provision. Provided at the end of this provision is a master listing of standard bid items the Department has determined are eligible for steel price adjustment. Only items on this listing will be eligible for steel price adjustment. Generally, non-standard pay items will not be eligible for steel price adjustment unless such steel items are project-specific modifications of items normally eligible and the quantities present on the project constitute major items of the work. Inventoried materials from the listing of eligible items are specifically excluded for consideration. This provision also does not allow for price adjustment for embedded steel where the steel item is a component of the finished bid item and there is no separate or distinct payment for the steel item or for steel used for pre-tensioned or post-tensioned precast components where furnishing steel is included in the unit price of the finished bid item. This includes items such as (but not limited to) drop inlets, median barriers, sound barrier walls, bridge railing and parapets, are not eligible for consideration under this provision.

The requirements of this provision shall apply only to material cost changes that occur between the date of the opening of the Price Proposal and the date the material is shipped to the fabricator. To be eligible for this price adjustment, Design-Builder is required to fill out the accompanying Form for Price Adjustment for Eligible Steel Items on Design-Build Projects and submit the same with its Price Proposal for the Project. By signing the Form and submitting it with its Price Proposal Design-Builder declares its intention to participate in the price adjustment in its contract with the Department. For the purposes of this provision, the prices listed on the Form for Price Adjustment for Eligible Steel Items on Design-Build projects are fixed for cost and adjustment calculations regardless of quantities incorporated into final design. Further, in order for steel items to be eligible for adjustment, once shipped to the fabricator, the items shall be specifically stored, labeled, or tagged, recognizable by color marking, and identifiable by project for inspection and audit verification immediately upon arrival at the fabricator.

Design-Builder shall upon request furnish documentation supporting the price per pound for eligible steel items as shown on the Form for Price Adjustment for Eligible Steel Items on Design-Build Projects furnished with its Price Proposal. Design-Builder must use the format as shown with this Form; no other format for presenting this information will be permitted. Design-Builder shall certify that all items of documentation are original and were used in the computation of the price per pound amount for the represented eligible pay items for the month the Price Proposal was opened. This documentation shall support the base line material price ("Base Price") of the steel item only. Base price per pound shall not include the following cost components: fabrication, shipping, storage, handling, and erection.

Failure to submit all documentation required or requested supporting the per pound prices on eligible steel items will result in Design-Builder being ineligible for a price adjustment of any or all steel items.

Price adjustment of each qualifying item will only be considered if there is an increase or decrease in the cost of eligible steel materials in excess of 10 percent up to a maximum of 60 percent from the Base Price when compared with the latest published price index ("Price Index") in effect at the time material is shipped to the fabricator.

The Price Index the Department is using is based on The U.S. Department of Labor, Bureau of Labor Statistics, Producers Price Index (PPI) which measures the average price change over time of the specific steel eligible item from the perspective of the seller of goods. The Master List table provided at the end of this provision indicates the Producers Price Index (PPI) steel category index items and the corresponding I.D. numbers to which VDOT items will be compared. **Please note:** The Producers Price Index (PPI) is subject to revision 4 months after original publication, therefore, price adjustments and payments will not be made until the index numbers are finalized.

Items under consideration for price adjustment will be compared to the steel category index items and the corresponding I.D. numbers shown in the table attached to the end of this provision.

The price adjustment will be determined by computing the percentage of change in index value beyond 10 percent above or below the index on the date of opening of Design-Builder's Price Proposal to the index value on the date the steel material is shipped to the fabricator (Please see included sample examples). Weights and date of shipment must be documented by a bill of lading provided to the Department. The final price adjustment dollar value will be determined by multiplying this percent increase or decrease in the index (after 10%) by the represented quantity of steel shipped, by the Base Price per pound subject to the limitations herein.

Price increase/decrease will be computed as follows:

$$A = B \times P \times Q$$

- Where;
- A = Steel price adjustment in lump sum dollars
 - B = Average weighted price of steel submitted in Design-Builder's Price Proposal for project in price per pound as listed on the Form for Price Adjustment for Eligible Steel Items on Design-Build Project
 - P = Adjusted percentage change in PPI average from shipping date to date of opening of Price Proposal minus 10% (0.10) threshold
 - Q = Total quantity of steel in pounds shipped to fabricator for specific project

This price adjustment is capped at 60 percent. This means the maximum "P" value for increase or decrease that can be used in the above equation is 50% (60%-10% threshold).

Calculations for price adjustment shall be shown separate from the monthly progress payment for work packages and will not be included in the total cost of work for determination of progress or for extension of contract time.

Upon Department review and due process consideration for redress by Design-Builder, any apparent evidence to unbalance the price supplied by Design-Builder in favor of items subject to price adjustment will result in ineligibility for Department participation under this provision.

Sample Calculation of a Price Adjustment (increase)

Project bid on April 28, 2004.

Project has 450,000 lb. of eligible structural steel.

Design Builder's *f.o.b. supplier price for structural steel submitted in the Price Proposal is \$0.2816 per pound. *free on board

Adjusted** BLS Producers Price Index (PPI) most recently published average at time of opening of the Price Proposal is 139.6.

All eligible steel shipped to fabricator in same month, October 2004.

Adjusted BLS Producers Price Index (PPI) most recently published average for month of October is 161.1

Adjustment formula is as follows:

$$A = B \times P \times Q$$

- Where;
- A = Steel price adjustment in lump sum dollars
 - B = Average weighted price of steel submitted in the Price Proposal for Design-Build project in \$ per pound
 - P = Adjusted percentage change in PPI average from shipping date to date of submitted Price Proposal minus 10% (0.10) threshold
 - Q = Total quantity of eligible steel shipped to fabricator in October 2004 for this project in pounds

$$B = \$0.2816$$

$$P = (161.1 - 139.6) / 139.6 - 0.10 = 0.054$$

$$Q = 450,000 \text{ lb.}$$

$$A = 0.2816 \times 0.054 \times 450,000$$

$$A = \$6,842.88 \text{ pay adjustment to Design-Builder}$$

Sample Calculation of a Price Adjustment (decrease)

Project bid on April 28, 2004.

Project has 450,000 lb. of eligible structural steel.

Design-Builder's *f.o.b. supplier price for structural steel submitted in the Price Proposal is \$0.2816 per pound. *free on board

Adjusted BLS Producers Price Index (PPI) most recently published average at time of opening of the Price Proposal is 156.6.

All eligible steel shipped to fabricator in same month, October 2004.

Adjusted BLS Producers Price Index (PPI) most recently published average for month of October is 136.3

Adjustment formula is as follows:

$$A = B \times P \times Q$$

- Where;
- A = Steel price adjustment in lump sum dollars
 - B = Average weighted price of steel submitted in the Price Proposal for Design-Build project in \$ per pound
 - P = Adjusted percentage change in PPI average from shipping date to date of submitted Price Proposal minus 10% (0.10) threshold
 - Q = Total quantity of eligible steel shipped to fabricator in October 2004 for this project in pounds

$$B = \$0.2816$$

$$P = (156.6 - 136.3)/156.6 - 0.10 = 0.030$$

$$Q = 450,000 \text{ lb.}$$

$$A = 0.2816 \times 0.030 \times 450,000$$

$$A = \$3,801.60 \text{ credit to Department}$$

MASTER LISTING

STANDARD BID ITEMS ELIGIBLE FOR STEEL PRICE ADJUSTMENT

June 8, 2018

BLS Series I. D.

ITEM NUMBER	ITEM DESCRIPTION	UNITS	Number WPU used in \$ adjust.
00519	SHEET PILE, STEEL	SF	avg. 1017 & 101
00540	REINF. STEEL	LB	101704
00560	STRUCTURAL STEEL JB-1	LB	avg. 1017 & 101
11030	REINF. STEEL BRIDGE APPR. SLAB	LB	101704
13545	REINF. STEEL	LB	101704
14502	REINFORCING STEEL	LB	101704
45522	4" STEEL ENCASE. PIPE	LF	101706
45532	6" STEEL ENCASE. PIPE	LF	101706
45562	16" STEEL ENCASE. PIPE	LF	101706
45572	18" STEEL ENCASE. PIPE	LF	101706
45582	24" STEEL ENCASE. PIPE	LF	101706
45584	24" JACKED STEEL ENCASUREMENT PIPE	LF	101706
45592	30" STEEL ENCASE. PIPE	LF	101706
60452	REINF. STEEL BRIDGE APPR. SLAB	LB	101704
61700	REINF. STEEL	LB	101704
61704	CORROSION RESISTANT REINF. STEEL	LB	101704
61750	STRUCT. STEEL HIGH STRG. PLT. GIRDERS	LB	avg. 1017 & 101
61811	STR. STEEL PLATE GIRDER ASTM A709 GRADE50	LB	avg. 1017 & 101
61812	STR. STEEL PLATE GIRDER ASTM A709 GRADE50	LB	avg. 1017 & 101
61813	STR. STEEL PLATE GIRDER ASTM A709 GRADEHPS50W	LB	avg. 1017 & 101
61814	STR. STEEL PLATE GIRDER ASTM A709 GRADEHPS70W	LB	avg. 1017 & 101
61820	STR. STEEL ROLLED BEAM ASTM A709 GRADE 36	LB	avg. 1017 & 101
61821	STR. STEEL ROLLED BEAM ASTM A709 GRADE50	LB	avg. 1017 & 101
61822	STR. STEEL ROLLED BEAM ASTM A709 GRADE50W	LB	avg. 1017 & 101
61990	STEEL GRID FLOOR	SF	avg. 1017 & 101
64110	STEEL PILES 10"	LF	avg. 1017 & 101
64112	STEEL PILES 12"	LF	avg. 1017 & 101
64114	STEEL PILES 14"	LF	avg. 1017 & 101
64768	DRIVING TEST FOR 12" STEEL PILE	LF	avg. 1017 & 101
64778	DRIVING TEST FOR 14" STEEL PILE	LF	avg. 1017 & 101
65200	REINF. STEEL	LB	101704
65204	CORROSION RESISTANT REINF. STEEL	LB	101704
68100	REINF. STEEL	LB	101704
68104	CORROSION RESISTANT REINF. STEEL	LB	101704
68107	STR. STEEL PLATE GIRDER ASTM A709 GRADE50	LB	avg. 1017 & 101
68108	STR. STEEL PLATE GIRDER ASTM A709 GR50W	LB	avg. 1017 & 101
68109	STR. STEEL PLATE GIRDER ASTM A709 GR.HPS50W	LB	avg. 1017 & 101
68110	STR. STEEL PLATE GIRDER ASTM A709 GR.HPS70W	LB	avg. 1017 & 101
68112	STR. STEEL ROLLED BEAM ASTM A709 GR.36	LB	avg. 1017 & 101
68113	STR. STEEL ROLLED BEAM ASTM A709 GR.50	LB	avg. 1017 & 101
68114	STR. STEEL ROLLED BEAM ASTM A709 GR. 50W	LB	avg. 1017 & 101
68115	STRUCT. STEEL	LB	avg. 1017 & 101
68270	REINF. STEEL BRIDGE APPR. SLAB	LB	101704
69060	SHEET PILES, STEEL	SF	avg. 1017 & 101

69100	REINF. STEEL	LB	101704
69104	CORROSION RESISTANT REINF. STEEL	LB	101704
69110	STEEL PILES 10"	LF	avg. 1017 & 101
69112	STEEL PILE 12"	LF	avg. 1017 & 101
69113	DRIVING TEST FOR 12" STEEL PILE	LF	avg. 1017 & 101

I elect to use this provision

I elect not to use this provision

Date: 1/18/23

Signature: 

Design-Builder: Brayman Construction Corporation

Vendor No.: B873

4.3.3: Proposal Guaranty C-24



COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
PROPOSAL GUARANTY

KNOW ALL MEN BY THESE PRESENTS, THAT WE Brayman Construction Corporation As principal, and Liberty Mutual Insurance Company Surety, are held and firmly bound unto the Commonwealth of Virginia as obligee, in the amount of FIVE PERCENT OF THE DOLLAR VALUE OF THE BID, lawful money of the United States of America, for the payment of which, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally and firmly by these presents.

SIGNED, sealed and dated this 18th Day of January, 20 23

WHEREAS, the above said principal is herewith submitting its proposal for:

PROJECT NUMBER: C00117110DB115
I-77 over Route 606 Bridge Replacement

NOW, THEREFORE, the condition of the above obligee is such, that if the aforesaid principal shall be awarded the contract upon said proposal and shall within the time specified in the Specifications after the notice of such award enter into a contract and give bond for the faithful performance of the contract, then this obligation shall be null and void; otherwise to remain in full force and effect and the principal and surety will pay unto the obligee the difference in money between the amount of the bid of the said principal and the amount for which the obligee may legally contract with another party to perform the said work if the latter amount be in excess of the former; but in no event shall the liability exceed the penal sum hereof.

Brayman Construction Corporation
(Principal*)
By: Frank Picomonte, PRESIDENT
(Officer, Partner or Owner) (Seal)

Liberty Mutual Insurance Company
(Surety Company)
By: Josephine M. Streyle
(Attorney-in-Fact**) (Seal)
Josephine M. Streyle
175 Berkeley Street, Boston, MA 02116
(Address)



By: _____
(Officer, Partner or Owner) (Seal)

By: N/A
(Surety Company)

By: _____
(Officer, Partner or Owner) (Seal)

By: _____
(Address)

*Note: If the principal is a *joint venture*, each party thereof must be named and execution made by same hereon. If there is more than one surety to the bid bond, each surety must be named and execution shall be made by same hereon.

Electronic Bid Only: In lieu of completing the above section of the Contract Performance Bond, the Principal shall file an Electronic Bid Bond when bidding electronically. By signing below the Principal is ensuring the identified electronic bid bond has been executed and the Principal and Surety are firmly bound unto the Commonwealth of Virginia under the same conditions of the bid bond as shown above.

Electronic Bid Bond ID# _____ Company/Bidder Name _____ Signature and Title _____

**Attach copy of Power of Attorney

4.3.4: Sworn Statement Forms



**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION**

PROJECT: 0077-010-834, P101, C501, B644

FHWA: NHFP-077-2(343)

This form must be completed, signed and returned with bid; and failure to do so may result in the rejection of your bid. **THE CONTRACTOR SHALL AFFIRM THE FOLLOWING STATEMENT EITHER BY SIGNING THE AFFIDAVIT AND HAVING IT NOTARIZED OR BY SIGNING THE UNSWORN DECLARATION UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE UNITED STATES.** A SEPARATE FORM MUST BE SUBMITTED BY EACH PRINCIPAL OF A JOINT VENTURE BID.

STATEMENT. In preparation and submission of this bid, I, the firm, corporation or officers, agents or employees thereof did not, either directly or indirectly, enter into any combination or arrangement with any persons, firm or corporation or enter into any agreement, participate in any collusion, or otherwise take any action in the restraint of free, competitive bidding in violation of the Sherman Act (15 U.S.C. Section 1) or Article 1.1 or Chapter 12 of Title 18.2 (Virginia Governmental Frauds Act), Sections 59.1-9.1 through 59.1-9.17 or Sections 59.1-68.6 through 59.1-68.8 of the Code of Virginia.

AFFIDAVIT

The undersigned is duly authorized by the bidder to make the foregoing statement to be filed with bids submitted on behalf of the bidder for contracts to be let by the Commonwealth Transportation Board.

Signed at Butler County, Saxonburg, PA, this 18th day of January, 20 23
County (City), STATE

Brayman Construction Corporation By: [Signature] President & COO
(Name of Firm) (Signature) Title (print)

STATE of Pennsylvania COUNTY (CITY) of Butler County, Saxonburg

To-wit: I Jennifer A. McKee, a Notary Public in and for the State and

County(City) aforesaid, hereby certify that this day January 18, 2023
personally appeared before me and made oath that he is duly authorized to make the above statements and that such statements are true and correct.

Subscribed and sworn to before me this 18th day of January, 20 23
[Signature] My Commission expires Oct. 8, 2026
Notary Public

OR
UNSWORN DECLARATION

The undersigned is duly authorized by the bidder to make the foregoing statement to be filed with bids submitted on behalf of the bidder for contracts to be let by the Commonwealth Transportation Board.

Signed at _____, this _____ day of _____, 20 _____
County (City), STATE

By: _____
(Name of Firm) (Signature) Title (print)

Commonwealth of Pennsylvania - Notary Seal
Jennifer A. McKee, Notary Public
Butler County
My commission expires October 8, 2026
Commission number 1108337
Member, Pennsylvania Association of Notaries

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
AFFIDAVIT

PROJECT:

FHWA:

This form must be completed, signed, notarized and returned with bid; and failure to do so, may result in the rejection of your bid. A separate form must be submitted by each principal of a joint venture bid.

1. I, the firm, corporation or officers, agents or employees thereof have neither directly nor indirectly entered into any combination or arrangement with any person, firm or corporation or entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with such contract, the effect of which is to prevent competition or increase the cost of construction or maintenance of roads or bridges.

During the preceding twelve months, I (we) have been a member of the following Highway Contractor's Associations, as defined in Section 33.1-336 of the Code of Virginia (1970). (If none, so state).

NAME	Location of Principal Office
<u>Associated General Contractors</u>	<u>Arlington, VA</u>
<u>American Road & Transportation</u>	<u>Washington, DC</u>
<u>Associated Pennsylvania Constr</u>	<u>Harrisburg, PA</u>

2. I (we) have ✓, have not _____, participated in a previous contract or subcontract subject to the equal opportunity clause, as required by Executive Orders 10925, 11114, or 11246, and that I/We have ✓, have not _____, filed with the joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements.

Note: The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor [41 CFR 60-1.7(b)(1)], and must be submitted by bidders and proposed subcontractors only in connection with contracts and subcontracts which are subject to the equal opportunity clause. Contracts and subcontracts which are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5. (Generally only contract or subcontracts of \$10,000 or under are exempt.)

Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders or their implementing regulations.

Proposed prime contractors and subcontractors who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports should note that 41 CFR 60-1.7(b) (1) prevents the award of contract and subcontract unless such contractor submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

(Continued)

ORDER NO.:
CONTRACT ID. NO.:

Form C-105
page 2

3. The bidder certifies to the best of its knowledge and belief, that it and its principals:
- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any Federal department or agency;
 - (b) Have not within a three year period preceding this proposal been convicted of or had a civil judgement rendered against them for commission of fraud or a criminal offence in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated above; and
 - (d) Where the bidders is unable to certify to any of the statements in this certification, the bidder shall show an explanation below.

Explanations will not necessarily result in denial of award, but will be considered in determining bidder responsibility. For any explanation noted, indicate below to whom it applies, initiating agency, and dates of action. Providing false information may result in federal criminal prosecution or administration sanctions. The bidder shall provide immediate written notice to the Department if at any time the bidder learns that its certification was erroneous when submitted or has become erroneous by reason of change circumstances.

The undersigned is duly authorized by the bidder to make the foregoing statements to be filed with bids submitted on behalf of the bidder for contracts to be let by the Commonwealth Transportation Board.

Signed at Butler County, Saxonburg, PA, this 18th day of January, 20 23
County (City), STATE

Brayman Construction Corporation By: [Signature] President & COO
(Name of Firm) (Signature) Title (print)

STATE of Pennsylvania COUNTY (CITY) of Butler County, Saxonburg

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personally appeared before me and made oath that he is duly authorized to make the above statements and that such statements are true and correct.

Subscribed and sworn to before me this 18th day of January, 20 23

[Signature] My Commission expires Oct. 8, 2026
Notary Public

