

ORIGINAL

**VOLUME 1:
Letter of Submittal and
Attachments**



A Design-Build Project
Replacement of I-81
Structures 18942 & 18944
over Route 808 Halls Bottom
Road and Sinking Creek

Washington County, Virginia

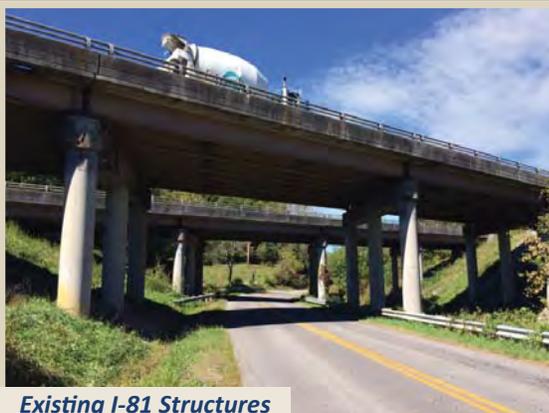
March 7, 2016

State Project No.: 0081-095-038, P101,
RW201, C501, B675, B676
Federal Project No.: IM-081-1(342)
Contract ID Number: C00107116DB85

Submitted By:



In Conjunction With:



Existing I-81 Structures



Existing I-81 Structures



Existing I-81 Structures



I-81 Over Maury River

In Association With:



ATTACHMENT 4.0.1.1

Replacement of Structures 18942 and 18944 over Rte. 808 Halls Bottom Rd. and Sinking Creek

LETTER OF SUBMITTAL AND ATTACHMENTS CHECKLIST

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

Technical Proposal Component	Form (if any)	RFP Part 1 Cross Reference	Page Reference
Letter of Submittal and Attachments Checklist	Attachment 4.0.1.1	Section 4.0.1.1	i-ii
Acknowledgement of RFP, Revisions, and/or Addenda	Attachment 3.6 (Form C-78-RFP)	Sections 3.6, 4.0.1.1	iii
Letter of Submittal	NA	Sections 4.1	Vol. 1: Pages 1-2
Letter of Submittal on Offeror's letterhead	NA	Section 4.1.1	Vol. 1: Pages 1-2
Offeror's official representative information	NA	Section 4.1.1	Vol. 1: Page 1
Authorized representative's original signature	NA	Section 4.1.1	Vol. 1: Page 2
Declaration of intent	NA	Section 4.1.2	Vol. 1: Page 1
120 day declaration	yes	Section 4.1.3	Vol. 1: Page 1
Point of Contact information	yes	Section 4.1.4	Vol. 1: Page 2
Principal Officer information	NA	Section 4.1.5	Vol. 1: Page 2
Final Completion Date	NA	Section 4.1.6	Vol. 1: Page 2
Proposal Payment Agreement or Waiver of Proposal Payment	Attachment 9.3.1 or 9.3.2	Section 4.1.7	Vol. 1: Appendix 4.1.7
Certification Regarding Debarment Forms	Attachment 11.8.6(a) Attachment 11.8.6(b)	Section 4.1.8	Vol. 1: Appendix 4.1.8
Written statement of percent DBE participation	NA	Section 4.1.9	Vol. 1: Page 2

ATTACHMENT 4.0.1.1

Replacement of Structures 18942 and 18944 over Rte. 808 Halls Bottom Rd. and Sinking Creek

LETTER OF SUBMITTAL AND ATTACHMENTS CHECKLIST

Technical Proposal Component	Form (if any)	RFP Part 1 Cross Reference	Page Reference
Attachments to the Letter of Submittal	NA	Section 4.2	Vol. 1: Pages 3-12
Confirmation that the information provided in the SOQ submittal remains true and accurate or indicates that any requested changes were previously approved by VDOT	NA	Section 4.2.1	Vol. 1: Page 3
Organizational chart with any updates since the SOQ submittal clearly identified	NA	Section 4.2.1	Vol. 1: Page 9
Revised narrative when organizational chart includes updates since the SOQ submittal	NA	Section 4.2.1	Vol. 1: Pages 3-8
Conceptual Roadway Plans – Plan View	NA	Section 4.2.2	Vol. 2: Page 15
Conceptual Roadway Plans – Typical Sections	NA	Section 4.2.2	Vol. 2: Page 14
Conceptual Bridge Plans – Plan View	NA	Section 4.2.3	Vol. 2: Page 18
Conceptual Bridge Plans – Transverse Section	NA	Section 4.2.3	Vol. 2: Pages 21-22
Conceptual Bridge Plans – Abutment/Pier Configuration	NA	Section 4.2.3	Vol. 2: Page 20
Proposal Schedule	NA	Section 4.2.4	Vol. 1: Pages 10-12 Vol. 2: Pages 23-25
Proposal Schedule	NA	Section 4.2.4.1	Vol. 2: Pages 23-25
Proposal Schedule Narrative	NA	Section 4.2.4.2	Vol. 1: Pages 10-12
Proposal Schedule in electronic format (CD-ROM)	NA	Section 4.2.4	Included with Proposal Package

ATTACHMENT 3.6**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION**

RFP NO. C00107116DB85
 PROJECT NO.: 0081-095-038, P101, RW201, C501, B675, B676

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 3.6, 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 December 21, 2015 - RFP
(Date)
2. Cover letter of February 4, 2016 – Addendum No. 1
(Date)
3. Cover letter of February 29, 2016 – Addendum No. 2
(Date)
4. Cover letter of March 1, 2016 – Addendum No. 3
(Date)

 _____ SIGNATURE	<u>March 7, 2016</u> _____ DATE
<u>Nathaniel R. Orders</u> _____ PRINTED NAME	<u>President</u> _____ TITLE



Main Office
Post Office Box 1448
Saint Albans, WV 25177
Tel 304 722-4237
Fax 304 722-4230
WV License #WV000007

Virginia Office
605 Lithia Road
Wytheville, VA 24382
Tel 276 227-0378
Fax 276 223-0134
VA License #2701032711

CONSTRUCTION COMPANY

www.ordersconstruction.com

March 7, 2016

Mr. Suril R. Shah
Alternate Project Delivery Office
Virginia Department of Transportation
1401 East Broad Street
Richmond, Virginia 23219

**RE: Replacement of I-81 Structures 18942 & 18944 over Rte. 808 Halls Bottom Rd and Sinking Creek, RFQ No.: C00107116DB85 (A Design-Build Project)
State Project No.:0081-095-038,P101,RW201,C501,B675,B676
Federal Project No.:IM-081-1(342)**

Subject: 4.1 Letter of Submittal

Dear Mr. Shah:

Orders Construction Company, Inc. is pleased to submit to the Virginia Department of Transportation our Letter of Submittal for the Halls Bottom Road project.

Orders Construction Company, Inc. offers:

4.1.2 Orders Construction Company, Inc., if selected, will enter into a contract with VDOT for the Project in accordance with terms in the RFP.

4.1.3 Pursuant to Part 1, Section 8.2, Orders Construction Company, Inc. declares that the offer represented by the Proposals will remain in full force and effect for one hundred twenty (120) days after the date of the Letter of Submittal and Attachments are actually submitted to VDOT.

4.1.4 Mr. Nathaniel Orders will serve as the Point of Contact for Orders Construction Company, Inc.

Nathaniel Orders
President
501 Sixth Ave.
St. Albans, WV 25177
Phone – (304) 722-4237
Fax – (304) 722-4230
Email – nateo@ordersconstruction.com



4.1.5 Nathaniel Orders will serve as the Principal Officer for Orders Construction Company, Inc.

Nathaniel Orders
501 Sixth Ave.
St. Albans, WV 25177
Phone – (304) 722-4237

4.1.6 Orders Construction Company, Inc. proposes September 4, 2018 as the Final Completion Date.

4.1.9 This statement is to declare that Orders Construction Company, Inc. is committed to achieving or exceeding a two percent (2%) DBE participation goal for the entire value of the contract.

The Orders team appreciates the opportunity to submit this Letter of Submittal and we look forward to your review.

Sincerely,



Nathaniel Orders
President
Orders Construction Company, Inc.

The organizational chart and Key Personnel proposed in the SOQ remains true and accurate for the Orders Design-Build Team. The following narrative and organizational chart describes the functional relationships of the team members and the clear “chain of command” to the DBPM. The departure of one of Orders Construction’s staff has necessitated a slight change to the team but as noted above this was not a Key Personnel on the team. **The changes to the narrative and the organizational chart are highlighted in yellow.**

TEAM STRUCTURE

Orders Construction Company (Orders) will be responsible for managing the project in its entirety, supervising the construction, and performing major elements of the construction work. Additional subcontractors for various specialty items such as guardrail, signage, and pavement striping will be under direct subcontract to Orders. Whitman, Requardt & Associates, LLP (WRA) will lead the design effort for all aspects of the project and will be responsible for the design QA/QC. The Orders Team includes highly qualified subconsultants that bring specific expertise to enhance the team and ensure a quality project for VDOT. A complete list of team members follows and an organizational chart of the Team is included.

Orders Construction Company, Inc. (Orders) - Offeror, Legal Entity, Lead Contractor

Orders is a family-owned business now being managed by third- and fourth-generation highway contractors and Registered Professional Engineers. Orders was founded in 1964 as a general contractor specializing in bridge construction for West Virginia clients and has grown to become a widely diversified supplier of construction services to a broad range of clients from the Mid-Atlantic to the Midwest.

Whitman, Requardt & Associates, LLP (WRA) – Lead Designer

WRA is a full service architectural and engineering firm that was founded over 100 years ago primarily serving state and local governments in the Mid-Atlantic region of the United States. WRA will serve as the Lead Designer for this project and will be responsible for the design QA/QC as well as managing survey work performed by our survey subconsultant. WRA has been performing work for state and local governments in Virginia for over 65 years and has extensive experience with Design-Build projects for VDOT.

Subconsultants

The Orders/WRA Team is comprised of highly qualified individuals and subconsultants extremely knowledgeable in VDOT policies and procedures and experienced with similar VDOT Design-Build projects. The following team of subconsultants has been carefully selected based on their relevant past experience and established working history of project success with VDOT, Orders Construction, and/or WRA:

A. Morton Thomas & Associates, Inc. (AMT) will provide the Quality Assurance Management and Inspection for the Orders Team. For nearly 60 years, AMT has been a respected provider of transportation design and construction phase expertise in Virginia, including Design-Build projects.

ECS-Mid-Atlantic, LLC (ECS) will provide QC Testing & Lab Services for the Orders Team. Founded in 1988, ECS has a staff of over 600 employees in the Mid-Atlantic region and is currently working on three Design-Build projects across the Commonwealth.

Schnabel Engineering Consultants, Inc. (SE) will provide a Quality Assurance Lab for the Orders Team. Schnabel’s in-house soil, materials, and asphalt laboratories are accredited by AASHTO Materials Reference Laboratory (AMRL) and the US Army Corps of Engineers (USACE) in their Richmond, Blacksburg, and Newport News offices.

H&B Surveying and Mapping, LLC (H&B) a Virginia-Certified, DBE/WBE (Woman-Owned Business) founded in 2009 will provide Surveying and Subsurface Utility Locating for the Orders Team. Since 2010, H&B Surveying and Mapping, LLC has teamed with WRA to provide surveying services on over 75 projects throughout Virginia including VDOT Design-Build projects including Walney Road Bridge and Road Widening in Fairfax County and Fall Hill Avenue Bridge Reconstruction and Widening project in the Fredericksburg, VA. H&B is currently contracted with WRA on 9 On-Call Contracts with VDOT, the City of Richmond, the Town of Blacksburg, and Montgomery and Chesterfield Counties.

KEY PERSONNEL

Key personnel Resume Forms were included in Attachment 3.3.1 located in Appendix C of the SOQ. A brief summary of key personnel is described below, and more detailed project experience for each are listed on the Resume Forms.

Design-Build Project Manager – Charlie Stokes (Orders – 42 years of experience)

Charlie Stokes (DBPM) Will serve as the project's DBPM and will have ultimate responsibility for the project delivery. He has been constructing VDOT roads and bridges for 42 years, and has served as Project Manager on numerous VDOT projects, including DBPM on the Route 60 Main Street Bridge Replacement (Design-Build) in Clifton Forge, VA; the DBPM on the Wolf Creek Bridge Replacement (Design-Build) in Giles County; PM on the Route 419 and East Main Street Interchange Bridge, Salem, VA; and PM on the Route 23/Kane Avenue in Gate City, VA. Throughout his career Charlie has excelled in bringing large transportation projects to completion on time and within budget from projects on the Capital Beltway to structures over South Holston Lake in Washington County and the Flannagan Reservoir in Dickenson County.

Quality Assurance Manager – Chad McMurray, PE, PMP, CCM, DBIA (AMT - 21 years of experience)

Chad McMurray (QAM) will report directly to the DBPM and will have direct, independent access to VDOT. Chad has performed this role previously on the \$90 million Route 460 Connector Phase I Design-Build roadway and bridge project in the Bristol District. As the QAM, Chad will be responsible for the Quality Assurance program and will coordinate with VDOT, supervise project QA inspection staff, and coordinate with the QA testing firm, Schnabel Engineering, Inc. Through this effort he will ensure conformance with the Contract Documents including the Approved for Construction plans and specifications. Chad will have overall responsibility for the development of and adherence to the Design-Build QA/QC Plan including coordination with the Design QA/QC Manager, Mark Vasco, PE. Chad will serve as a direct report to the DBPM but will function independently from the Construction QC Manager, auditing and monitoring Orders Construction Quality Control Program. He will have the authority to stop construction activities to ensure compliance with the specifications and issue Non-Compliance Reports (NCRs) if necessary. In addition, Chad will submit monthly written reports on the status of the QA Program to both VDOT and the Orders Design-Build Team.

Design Manager – Michael Russell, PE (WRA – 27 years of experience)

Michael Russell (DM) will also report directly to the DBPM. Mike has 27 years of experience designing and managing transportation projects and programs for VDOT. He is currently the Design Project Manager on the I-81 New River Bridge Replacement project in the Salem District which has similar traffic, MOT, and geological constraints that will be encountered on this project. He will be responsible for providing a quality product, meeting all design milestones, continual Design-Build Team coordination and ensuring the Design QA/QC Manager's involvement throughout the design phase. Mike is responsible for ensuring all design work is performed in accordance with current VDOT Policies, Procedures and Guidelines. He will manage all aspects of design including but not limited to roadway; structural; hydraulic; traffic; MOT; environmental; and

geotechnical. He will assign resources as needed; oversee the design subconsultant for survey; coordinate design and review schedules; develop and implement corrective measures if necessary; and ensure environmental compliance measures are integrated into the design. He will coordinate the design and construction with the Environmental Permitting Coordinator, Taylor Sprenkle, to ensure all commitments are achieved by the project. Mike will maintain involvement in the project once construction begins to oversee any plan modifications and shop drawings, and review construction activities with the CM as work progresses.

Construction Manager – Kevin Conner (Orders – 32 years of experience)

Kevin Conner (CM) will also report to the DBPM and be responsible for overseeing the project site for the duration of construction. He will be responsible for managing the overall construction process, including all construction quality control activities. Kevin has over 32 years of experience and has been employed with Orders for 11 years. He is responsible for successfully completing numerous roadway and bridge projects for VDOT and WVDOH, including working with Project Manager Charlie Stokes on VDOT’s Design-Build Route 60 Main Street Bridge Replacement project in Clifton Forge and the I-81 Maury River Bridge Replacement project in Rockbridge County (designed by WRA). Kevin currently holds a Virginia DEQ Responsible Land Disturber Certification (RLD) #RLD02695 and a VDOT Erosion and Sediment Control Contractor Certification (ESCCC) #1559C. **Kevin will also serve as the project’s Construction Environmental Manager.**

ORGANIZATIONAL CHART

The Orders Design-Build Team Organizational Chart on Page 7 identifies key personnel members and depicts the reporting structure of the Team. Solid lines identify the direct lines of reporting relationships of our team members from the DBPM to the Design, Construction and QA team. Dashed lines represent indirect reporting relationships and obligations to the DBPM and the team members. Furthermore, the reporting structure for the Quality Assurance shows a clear separation between the Construction Quality Control Inspection and field/laboratory testing duties.

As a continuation of the functional relationships for Key Personnel described above, the following narrative further defines the roles and functional relationships of the additional team members. Each of these team members were carefully chosen based on their extensive experience and well-established working relationships on previous projects.

Safety Manager

Safety Manager: Jeff Dixon, CSP reports to the CM and serves as the Company Safety Director for Orders Construction. Jeff ensures all projects are operating safely and in accordance with OSHA regulations. Jeff is a Certified Safety Professional and has been working with Orders Construction for 10 years. Jeff is responsible for safety training to all Orders employees, ensuring they have all the required personal protective equipment. Jeff is also in charge of all pre-employment training and certifications, and compliance with all job-specific safety plans.

Design

Structural/Bridge Engineer: Jeremy Schlusel, PE reports to the DM and will be in charge of structural engineering for the project including the I-81 Bridges and associated retaining walls. Jeremy has extensive experience designing bridge projects for VDOT including the I-81 New River Bridges in the Salem District and the I-81 Maury River and Buffalo Creek bridge replacement projects in the Staunton District. Jeremy serves as Structure Design lead for all of WRA’s VDOT Design-Build projects as well as managing over 200 bridge improvement tasks for VDOT’s Structure and Bridge Division under On-Call contracts over the last 10

years. He will lead production efforts for all structural engineering designs including plans, estimates and specifications for the project. Jeremy will also review structural shop drawings and assist the DBPM, CM and DM during construction.

Roadway Engineer: Brad Stipes, PE has 27 years of experience will report to the DM and lead the roadway design efforts for the project. He is currently serving as the lead designer on the I-81 Bridge Replacement Project over the New River, a \$98 million project in the Salem District. He has extensive working relationships with the Location & Design Staff in the Bristol District having worked on numerous Bristol District projects for more than 20 years, including WRA's current Statewide On-Call design contract. Brad has worked on numerous highway and roadway projects and understands VDOT policies and procedures, particularly as they relate to interstate projects.

Geotechnical Engineer: Jeff Basford, PE has over 15 years of experience in subsurface explorations, geotechnical analysis, design of pavement sections and shallow and deep foundations, slope stability analysis, concrete and geosynthetic reinforced earth retaining structures, and in-situ testing and verification during construction. Jeff is currently the Lead Geotechnical Engineer on the I-81 New River Bridge Replacement project in the Salem District, and was the Lead Geotechnical Engineer on both the I-81 Maury River and Buffalo Creek Bridge Replacement projects in the Staunton District. He has also been involved on numerous Design-Build projects for WRA in Virginia and Maryland. Jeff has a complete understanding of the VDOT Manual of Instruction, Chapter 3. Jeff will report to the DM and collaborate with the Structural Design Engineer and CM.

MOT/Traffic Engineer: Dana Trone, PE, PTOE

Dana has over 19 years of experience in traffic engineering including development of transportation management plans (TMP); MOT design; lighting; signing; ITS; and pavement marking plans. Dana has developed several TMPs for bridges with construction on and over interstates in Virginia, including numerous Design-Build projects. She is extensively familiar with the Traffic Engineering Handbook, MUTCD, Highway Safety Design Manual and Virginia Work Area Protection Manual. Dana will report to the DM, Mike Russell and collaborate with the Construction MOT Manager, Steve McKee.

Drainage/Hydraulics Engineer: David Gertz, PE will report to the DM and lead the design efforts for drainage and SWM. David has over 36 years of experience in roadway drainage design and stormwater management, and has designed numerous projects for VDOT utilizing the new Virginia stormwater regulations that took effect in July 2014. David has worked on VDOT projects as the Lead Drainage/Hydraulics Engineer continuously for the last 25 years. He most recently served as Lead Drainage/Hydraulics Engineer for the Berkmar Extension section of VDOT's Route 29 Solutions Design-Build project in Albemarle County.

Environmental Permitting: Taylor Sprengle will report to the DM and secure all environmental permits needed for the project. Taylor has over 12 years of experience with environmental reviews and permitting required for transportation projects including the I-81 Truck Climbing Lanes in Montgomery County and the 17-mile Route 460 project in the City of Suffolk and Isle of Wight County. Taylor will work closely with the Construction Environmental Manager, **Kevin Conner**, to ensure all permit requirements are fulfilled.

Utility Design Engineer: Gary Fern, PE has 35 years of experience in utility designs/relocations and has worked on numerous VDOT On-Call Utility Design contracts as well as On-Call contracts for Virginia localities and public service authorities. He is currently responsible for the utility relocation design for the entire Route 29 Solutions Design-Build project. Gary will report to the DM, Mike Russell, and will interact closely with the CM, Kevin Conner, as necessary.

Erosion and Sediment Control Reviewer: *Glenn Wilson* has 18 years of experience in E&S Control design and other water resources engineering services for transportation projects. He is thoroughly familiar with the water quality requirements of USACE, DCR, VDOT's Drainage Manual, Virginia's SWM Handbook, Virginia E&S Control Handbook and related VDOT IIM's. He is a certified DCR Combined Administrator (Certificate #684). Glenn will report to the DM and collaborate with the Construction Environmental Manager.

Design QA/QC

Design QA/QC Manager, *Mark Vasco, PE* will report to the DM. Mark will coordinate with the QAM to integrate the Design QA/QC plan into the Design-Build Project QA/QC plan and will ensure that all design quality control procedures are completed in accordance with that plan. He will verify that QC and interdisciplinary reviews, including comment resolution, are made prior to submissions. Mark has more than 32 years of experience in the design of transportation projects with extensive experience in both highway and maintenance of traffic designs, and has extensive experience with VDOT Design Manuals; IIMs; design standards; and VDOT/AASHTO criteria. Mark recently served as the Design QA/QC Manager on the Fall Hill Ave. & Mary Washington Blvd. Extension Design-Build project.

Construction QC

Construction QC Manager (CQC): *Steve Short* has over 21 years of experience managing QC activities on various construction projects across Virginia including the Route 35 Bridge Replacement Design-Build project in Courtland, and provided QA inspection services for VDOT's Route 61 Bridge over the New River Design-Build project in Narrows. He will report to the CM and will be responsible for managing all QC work for Orders, including coordinating the ECS's QC testing lab and testing technicians. Steve is extensively knowledgeable in all of VDOT Construction requirements, specifications, and testing methods and will coordinate with the QAM and the DBPM on the QC components of the project.

Construction

Project Controls/DBE Compliance: *Cheri George* will report to the DBPM and currently serves as the Office Manager for the Virginia office of Orders Construction. Cheri oversees day to day project controls and DBE compliance for all projects in Virginia. Cheri has a history of 25 years in this capacity.

Grading/Roadway Superintendent, Construction MOT Manager: *Steve McKee* will report to the CM and will be responsible for all phases of on-site roadway construction, including personnel supervision, job site safety, and subcontractor management. Steve possesses current ESCCC, Intermediate Work Zone Traffic Control, and ACI Concrete certifications. Steve has worked on the VDOT's Route 60 Main St. Bridge Design-Build project in Clifton Forge, Virginia and the Route 250 Bridge Replacement project in Highland County.

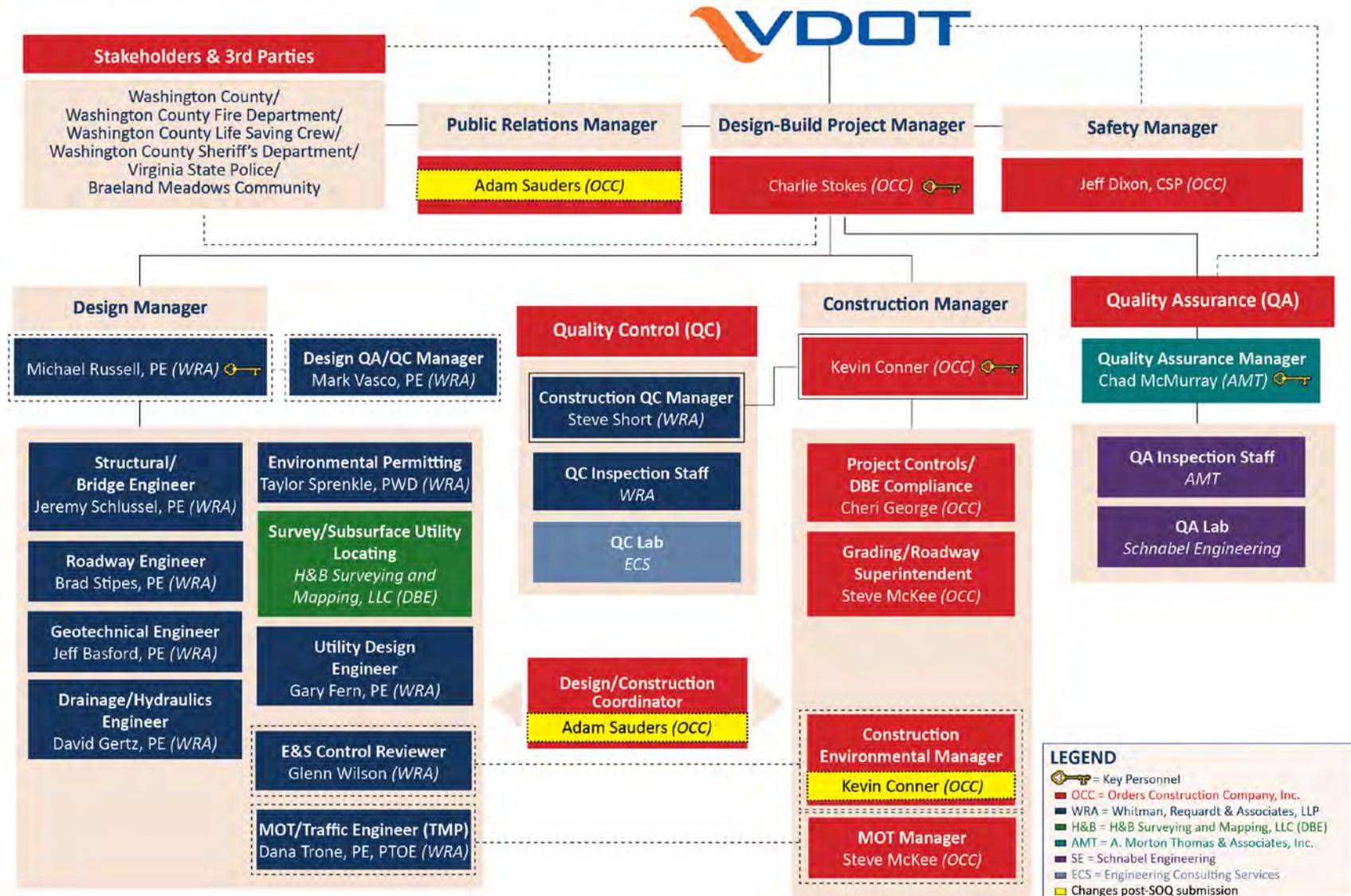
Design/Construction Coordinator and Public Relations Manager, &: *Adam Sauders*, will assist the DBPM and the CM by combining these roles. Adam will be responsible for coordinating project reviews during design and processing RFIs during construction. He will assist the DBPM with the initial schedule development and ongoing updates. He will also serve as Public Relations Manager and interface closely with the Bristol District Public Affairs section and the SWRO-TOC.

The Orders Design-Build Team was carefully assembled based on each firm's intimate knowledge of the site, existing working relationships internally and with VDOT, and their specific expertise to manage the project risks. The WRA design team has worked together extensively on major I-81 bridge replacement projects successfully managing very similar risks to those on this project including extensive MOT and geotechnical constraints. The risk management plan is developed to adapt quickly with mitigation and contingency plans in place prior to construction beginning. Partnering during construction ensures issues are quickly resolved

with minimal impact to project schedule. The Orders DB Team relationships forged on previous similar interstate projects such as the I-81 Maury River Bridge Replacement Project and the I-64 Maury River Bridge project are being leveraged to present a Team to VDOT with a proven track record of effectively managing and delivering Design-Build projects for the Department. These examples of corporate partnership combined with the professional relationship enjoyed by Charlie Stokes, the DBPM and Mike Russell, the DM that dates back to the early 1990's, further illustrates the mutual respect and ability to partner that the team members have firmly in place. The Orders Design-Build Team has fully embraced the Design-Build program that has evolved over the past several years with VDOT and is a proven leader in the Design-Build arena in Virginia.

ORGANIZATIONAL CHART

Replacement of I-81 Structures 18942 & 18944 over Rte. 808 Halls Bottom Rd and Sinking Creek Organizational Chart



PROPOSAL SCHEDULE NARRATIVE

The Orders Construction team has developed a Proposal Schedule Narrative that describes our plan to execute the work in accordance with the Contract Documents. The narrative also provides a description and explanation of the Critical Path and assumptions relative to productivity and critical activities.

Project Milestones

Key Milestone	Milestone Date
CTB Approval/Notice of Award	March 25, 2016
DB Contract Execution	April 20, 2016
Notice to Proceed	May 24, 2016
Scope Validation Period Complete	September 20, 2016
Begin Construction Activities	August 4, 2016
Final Completion	September 4, 2018

Work Breakdown Structure

The Work Breakdown Structure (WBS) is a multi-level, hierarchical arrangement of the work to be performed on the project. The Orders Construction Team has laid out the WBS to enable identification of design and construction phases of the project. Design is broken down into various components such as Geotechnical, Survey, Permitting, 60% Design, Final Design, etc. Construction is subdivided into median work, north bound bridge work, south bound bridge work, and final pavement. Additionally, an activity coding structure will be utilized in the project schedule to facilitate the organization of the CPM schedule data output in respective disciplines.

Calendars

Calendar	Non-Work Period
7 Day Calendar	
Standard 5 day work week with holidays	
Standard Construction Calendar w/ weather and holidays	
Paving Calendar	November 20 – March 19

The Orders Construction Team's approach to adverse weather differs depending on the type of work being performed. Project durations are based on working five 10-hour days with 4 weather impacted days per month for construction activities. Paving is restricted based on anticipated acceptable temperatures for asphalt placement. Admin and Design activities occur on a 5 day work week taking into consideration VDOT holidays.

This approach for construction activities yields 48 weather days per year excluding paving operations. Since most bridge activities can continue immediately after impacting weather ceases, Orders has found that anticipating 4 weather days per month is a good average for most projects. In addition, Saturdays will be utilized as make-up days should weather impacts exceed the expected.

Plan and Strategy

Design will begin immediately upon notice of intent to award. The design phase includes investigative activities such as supplemental field surveys, geotechnical borings and laboratory analysis, and scope validation. Preparation of roadway and bridge plans including preliminary engineering, final plan development, hydrologic and hydraulic analysis, drainage and stormwater management design, development

of the Transportation Management Plan, and an Advance Work Package. The schedule includes time for VDOT review and approval of plans and reports and the release for construction plans. Other activities performed in the design phase include environmental permitting, utility delineation and coordination, and meeting with the Board of Supervisors for Halls Bottom Road closure.

Upon receipt of the notice to proceed, the design and construction teams will work on scope validation in conjunction with VDOT. During this time frame, field work and initial coordination of construction permits will begin. These permits include the VSMP permit, Water Quality Permit, and FAA approval.

Development of final construction documents will begin at that after 60% plans have been reviewed by VDOT. At this point, the final details will be included in the documentation for each permit and the construction permits will be obtained. There will be an Advance Work Package developed for the project that will allow the Team to begin working on the grading of the median for the temporary traffic shifts.

Once this Advance Work Package has been reviewed by VDOT with the 60% plans, construction operations will commence, which begins with mobilization, initial MOT, and initial E&S. The Team will then begin work on modifications required to the median to allow the temporary shift of traffic that will be utilized at different times by both north bound and south bound traffic as each of those respective bridges are constructed in sequence. Upon issuance of the RFC Bridge Plans, the Team will begin constructing the median bridge that will be required for the temporary shift of traffic to the median for the NB and SB bridge construction.

Upon completion of that median bridge and grading work, the NB traffic will be switched to the median while the existing NB bridge is demolished and the new bridge is constructed. Grading, drainage, and paving work for the NB lanes will take place concurrently and will be paved through the intermediate course. NB traffic will then be switched back to the new NB bridge and lanes and SB traffic will be shifted to the median for SB bridge demolition and construction. Grading, drainage, and paving through the intermediate course for the SB lanes will occur concurrent to SB bridge construction. Upon completion of the SB bridge, SB traffic will be returned to current traffic patterns and final paving and pavement marking will take place for both NB and SB lanes.

The Team will then perform final clean-up and punch list activities, demolish the temporary median work that had been used for NB and SB traffic shifts, and then demobilize.

Critical Path

The critical path of the project is shown on the included schedule. It includes various pre-construction activities and then is generally controlled by the various bridge construction activities ending with the final paving and pavement markings, clean-up and demolition of the temporary median work and finally demobilization.

Schedule Management

The Orders Construction Team will coordinate the scope of all project related activities to establish a timely critical path method (CPM) job schedule that will help ensure on-time completion and identify potential risks. Project controls will be centralized in the local project office. The Design-Build Project Manager is responsible for the implementation of the project controls system.

Upon award of the contract, the Team will plan and schedule the entire project based on the conceptual design drawings. To control time spent on activities, we will develop a detailed, time-phased CPM project schedule, prepared with timelines outlined within the scope of work.

The schedule will identify the necessary procurement and construction activities for each phase of the project. Various calendars will be incorporated into the project schedule to reflect holidays, seasonal work, owner requirements, etc. The activities within the CPM schedule will be organized according to a WBS that has been developed for the project. An Activity Coding Structure will be used in the project schedule to organize data output. The project schedule will be the tool used for coordination of activities and crews. Schedule updates will also be used by the DB Project Manager to review progress, identify areas of potential concern, and coordinate efforts of team members.

Detailed schedules are used to plan and monitor specific items of work and will be prepared as necessary to deal with individual work packages and activities as needed. As work progresses, start dates, finish dates, percent complete, and remaining durations will be updated to report progress of each work activity. The Team will update the schedule on a monthly basis, review the results internally and with the Owner, and prepare the required reports for submission.

When changes or unforeseen conditions arise that impact the project schedule, the Team will immediately notify VDOT and begin incorporating changes into the “living” CPM schedule. If changes to any activity or phase in the schedule results in schedule impacts, the DB Project Manager will develop a detailed Schedule Impact Analysis for submission and review by VDOT.

The Team will utilize the schedule to monitor project progress and implement recovery measures when needed to keep the project on track. The Orders Construction Team is committed to meeting or improving upon the proposed schedule to better serve VDOT, the stakeholders, and the traveling public.

The Orders Team has developed a Proposal Schedule and Narrative that demonstrates our understanding of the project and the interrelationships of all project elements. It takes into account internal plan reviews, VDOT plan reviews and approvals, environmental permitting, fabrication time, and construction activities in accordance with the requirements of the RFP.

ATTACHMENT 9.3.1
PROPOSAL PAYMENT AGREEMENT

THIS PROPOSAL PAYMENT AGREEMENT (this "Agreement") is made and entered into as of this 7th day of March, 2016, by and between the Virginia Department of Transportation ("VDOT"), and Orders Construction Company Co., Inc. ("Offeror").

WITNESSETH:

WHEREAS, Offeror is one of the entities who submitted Statements of Qualifications ("SOQs") pursuant to VDOT's *September 25, 2015* Request for Qualifications ("RFQ") and was invited to submit proposals in response to a Request for Proposals ("RFP") for the **Replacement of I-81 Structure 18942 and 18944 over Rte. 808 Halls Bottom Rd. and Sinking Creek, Project No. 0081-095-038** ("Project"), under a design-build contract with VDOT ("Design-Build Contract"); and

WHEREAS, as part of the procurement process for the Project, Offeror has already provided and/or furnished to VDOT, and may continue to provide and/or furnish to VDOT, certain intellectual property, materials, information and ideas, including, but not limited to, such matters that are: (a) conveyed verbally and in writing during proprietary meetings or interviews; and (b) contained in, related to or associated with Offeror's proposal, including, but not limited to, written correspondence, designs, drawings, plans, exhibits, photographs, reports, printed material, tapes, electronic disks, or other graphic and visual aids (collectively "Offeror's Intellectual Property"); and

WHEREAS, VDOT is willing to provide a payment to Offeror, subject to the express conditions stated in this Agreement, to obtain certain rights in Offeror's Intellectual Property, provided that Offeror submits a proposal that VDOT determines to be responsive to the RFP ("Offeror's Proposal"), and either (a) Offeror is not awarded the Design-Build Contract; or (b) VDOT cancels the procurement or decides not to award the Design-Build Contract to any Offeror; and

WHEREAS, Offeror wishes to receive the payment offered by VDOT, in exchange for granting VDOT the rights set forth in this Agreement.

NOW, THEREFORE, in consideration of the mutual covenants and agreements set forth in this Agreement and other good and valuable consideration, the receipt and adequacy of which are acknowledged by the parties, the parties agree as follows:

1. **VDOT's Rights in Offeror's Intellectual Property.** Offeror hereby conveys to VDOT all rights, title and interest, free and clear of all liens, claims and encumbrances, in Offeror's Intellectual Property, which includes, without restriction or limitation, the right of VDOT, and anyone contracting with VDOT, to incorporate any ideas or information from Offeror's Intellectual Property into: (a) the Design-Build Contract and the Project; (b) any other contract awarded in reference to the Project; or (c) any subsequent procurement by VDOT. In receiving all rights, title and interest in Offeror's Intellectual Property, VDOT is deemed to own all intellectual property rights, copyrights, patents, trade secrets, trademarks, and service marks in Offeror's Intellectual Property, and Offeror agrees that it shall, at the request of VDOT, execute all papers and perform all other acts that may be necessary to ensure that VDOT's rights, title and interest in Offeror's Intellectual Property are protected. The rights conferred herein to VDOT include, without limitation, VDOT's ability to use Offeror's Intellectual Property without the obligation to notify or seek permission from Offeror.

2. **Exclusions from Offeror's Intellectual Property.** Notwithstanding Section 1 above, it is understood and agreed that Offeror's Intellectual Property is not intended to include, and Offeror does not convey any rights to, the Escrow Proposal Documents submitted by Offeror in accordance with the RFP.

3. **Proposal Payment.** VDOT agrees to pay Offeror the lump sum amount of **Ten Thousand and 00/100 Dollars (\$10,000.00)** ("Proposal Payment"), which payment constitutes payment in full to Offeror for the conveyance of Offeror's Intellectual Property to VDOT in accordance with this Agreement. Payment of the Proposal Payment is conditioned upon: (a) Offeror's Proposal being, in the sole discretion of VDOT, responsive to the RFP; (b) Offeror complying with all other terms and conditions of this Agreement; and (c) either (i) Offeror is not awarded the Design-Build Contract, or (ii) VDOT cancels the procurement or decides not to award the Design-Build Contract to any Offeror.

4. **Payment Due Date.** Subject to the conditions set forth in this Agreement, VDOT will make payment of the Proposal Payment to the Offeror within forty-five (45) days after the later of: (a) notice from VDOT that it has awarded the Design-Build Contract to another Offeror; or (b) notice from VDOT that the procurement for the Project has been cancelled and that there will be no Contract Award.

5. **Effective Date of this Agreement.** The rights and obligations of VDOT and Offeror under this Agreement, including VDOT's ownership rights in Offeror's Intellectual Property, vests upon the date that Offeror's Proposal is submitted to VDOT. Notwithstanding the above, if Offeror's Proposal is determined by VDOT, in its sole discretion, to be nonresponsive to the RFP, then Offeror is deemed to have waived its right to obtain the Proposal Payment, and VDOT shall have no obligations under this Agreement.

6. **Indemnity.** Subject to the limitation contained below, Offeror shall, at its own expense, indemnify, protect and hold harmless VDOT and its agents, directors, officers, employees, representatives and contractors from all claims, costs, expenses, liabilities, demands, or suits at law or equity (“Claims”) of, by or in favor of or awarded to any third party arising in whole or in part from: (a) the negligence or wilful misconduct of Offeror or any of its agents, officers, employees, representatives or subcontractors; or (b) breach of any of Offeror’s obligations under this Agreement, including its representation and warranty under Section 8 hereof. This indemnity shall not apply with respect to any Claims caused by or resulting from the sole negligence or wilful misconduct of VDOT, or its agents, directors, officers, employees, representatives or contractors.

7. **Assignment.** Offeror shall not assign this Agreement, without VDOT's prior written consent, which consent may be given or withheld in VDOT’s sole discretion. Any assignment of this Agreement without such consent shall be null and void.

8. **Authority to Enter into this Agreement.** By executing this Agreement, Offeror specifically represents and warrants that it has the authority to convey to VDOT all rights, title, and interest in Offeror’s Intellectual Property, including, but not limited to, those any rights that might have been vested in team members, subcontractors, consultants or anyone else who may have contributed to the development of Offeror’s Intellectual Property, free and clear of all liens, claims and encumbrances.

9. **Miscellaneous.**

a. Offeror and VDOT agree that Offeror, its team members, and their respective employees are not agents of VDOT as a result of this Agreement.

b. Any capitalized term used herein but not otherwise defined shall have the meanings set forth in the RFP.

c. This Agreement, together with the RFP, embodies the entire agreement of the parties with respect to the subject matter hereof. There are no promises, terms, conditions, or obligations other than those contained herein or in the RFP, and this Agreement shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties hereto.

d. It is understood and agreed by the parties hereto that if any part, term, or provision of this Agreement is by the courts held to be illegal or in conflict with any law of the Commonwealth of Virginia, validity of the remaining portions or provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the Agreement did not contain the particular part, term, or provisions to be invalid.

e. This Agreement shall be governed by and construed in accordance with the laws of the Commonwealth of Virginia.

IN WITNESS WHEREOF, this Agreement has been executed and delivered as of the day and year first above written.

VIRGINIA DEPARTMENT OF TRANSPORTATION

By: _____

Name: _____

Title: _____

[Insert Offeror's Name]

By: Nathaniel R. Orders

Name: Nathaniel R. Orders

Title: President

ATTACHMENT 11.8.6(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0081-095-038

- 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.

	3/2/16	Senior Vice President
Signature	Date	Title

Whitman, Requardt & Associates, LLP
Name of Firm

ATTACHMENT 11.8.6(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0081-095-038

- 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.



2/29/2016

Principal / Senior Vice President

Signature

Date

Title

Schnabel Engineering, LLC

Name of Firm

ATTACHMENT 11.8.6(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0081-095-038

- 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

March 1, 2016

Date

Vice President

Title

H&B Surveying and Mapping, LLC

Name of Firm

ATTACHMENT 11.8.6(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0081-095-038

- 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

2/26/2015

Date

Chief Engineer

Title

ECS Mid-Atlantic, LLC

Name of Firm



In Conjunction With:



In Association With:



March 7, 2016



ORIGINAL

VOLUME 2: Roadway and Bridge Design Concept Plans and Proposal Schedule

A Design-Build Project Replacement of I-81 Structures 18942 & 18944 Over Route 808 Halls Bottom Road and Sinking Creek Washington County, Virginia

State Project No.: 0081-095-038, P101, RW201, C501, B675, B676
Federal Project No.: IM-081-1(342)
Contract ID Number: C00107116DB85

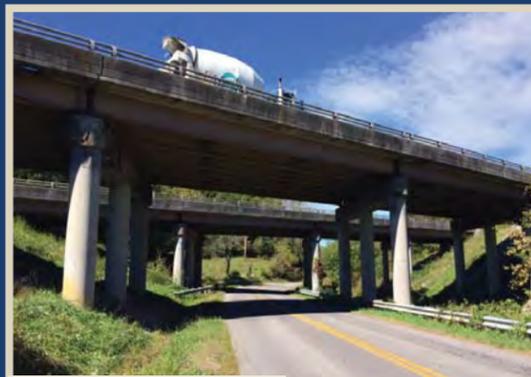
Submitted By:



In Conjunction With:



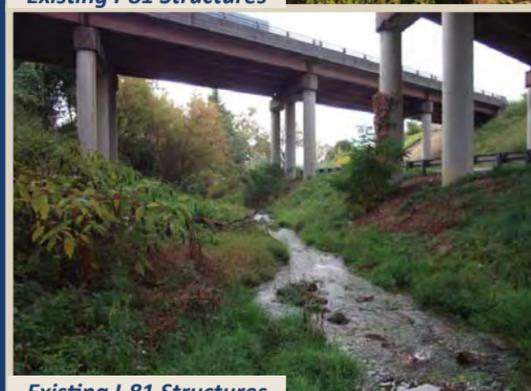
In Association With:



Existing I-81 Structures



Existing I-81 Structures



Existing I-81 Structures



I-81 Over Maury River

FOR INDEX OF SHEETS SEE THIS SHEET

THIS PROJECT WAS DEVELOPED UTILIZING THE DEPARTMENT'S ENGINEERING DESIGN PACKAGE (GEOPAK).
GEOPAK Computer Identification No. 107116



COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE OF PROPOSED
STATE HIGHWAY
DESIGN-BUILD PROJECT

WASHINGTON COUNTY
REPLACEMENT OF I-81 STRUCTURES 18942 & 18944
OVER RTE. 808 (HALLS BOTTOM RD.) AND SINKING CREEK
FROM: 0.94 MILES NORTHEAST OF RTE. F310
TO: 1.83 MILES SOUTHWEST OF RTE. 611 SPRING CREEK RD.

STATE	FEDERAL AID PROJECT	ROUTE	STATE PROJECT	SHEET NO.
VA.		81	0081-095-038 P101 (SEE TABULATION BELOW FOR SECTION NUMBERS)	1

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA	
RURAL PRINCIPAL ARTERIAL (GS-1)	
	Fr: 0.94 MILES NORTHEAST OF RTE. F310 To: 1.83 MILES SOUTHWEST OF RTE. 611 SPRING CREEK RD.
ADT (2012)	46,066
ADT (2041)	72,000
DHV (2041)	7,200
D (%) (design hour)	50%
T (%) (design hour)	22%
V (MPH)	75 MPH

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	-----

INDEX OF SHEETS

TITLE SHEET	1
TYPICAL SECTIONS	2A
PLAN SHEET	3
PROFILE SHEET	3A
PLAN SHEET (FUTURE WIDENING)	4

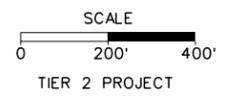
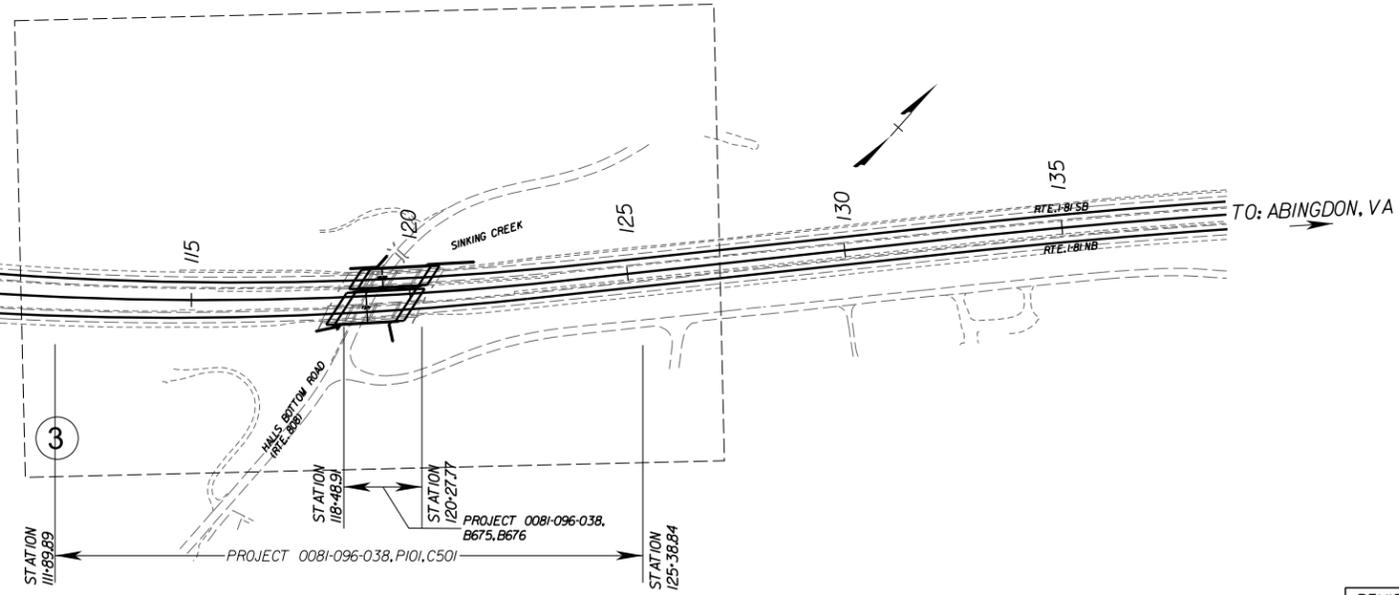
THE COMPLETE ELECTRONIC PDF VERSION OF THE PLAN ASSEMBLY AS AWARDED, HAS BEEN SEALED AND SIGNED USING DIGITAL SIGNATURES AND THE OFFICIAL PLAN ASSEMBLY IN ELECTRONIC FORMAT IS STORED IN THE VDOT CENTRAL OFFICE PLAN LIBRARY. INCLUDING ALL SUBSEQUENT REVISIONS, WILL BE THE OFFICIAL CONSTRUCTION PLANS. FOR INFORMATION RELATIVE TO ELECTRONIC FILES AND LAYERED PLANS, SEE THE GENERAL NOTES.

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

THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE DEPARTMENT'S 2007 ROAD AND BRIDGE SPECIFICATIONS, 2008 ROAD AND BRIDGE STANDARDS, 2009 MUTCD, 2011 VIRGINIA SUPPLEMENT TO THE MUTCD, 2011 VIRGINIA WORK AREA PROTECTION MANUAL AND AS AMENDED BY CONTRACT PROVISIONS AND THE COMPLETE ELECTRONIC PDF VERSION OF THE PLAN ASSEMBLY.

ALL CURVES ARE TO BE SUPERELEVATED, TRANSITIONED AND WIDENED IN ACCORDANCE WITH STANDARD TC-5.11 ULS, EXCEPT WHERE OTHERWISE NOTED.

THE ORIGINAL APPROVED TITLE SHEET(S), INCLUDING ORIGINAL SIGNATURES, ARE FILED IN THE VDOT CENTRAL OFFICE PLAN LIBRARY. ANY MISUSE OF ELECTRONIC FILES, INCLUDING SCANNED SIGNATURES, IS ILLEGAL AND ENFORCED TO THE FULL EXTENT OF THE LAW.



RECOMMENDED FOR APPROVAL FOR RIGHT OF WAY ACQUISITION	
DATE	(DESIGN-BUILD FIRM) DESIGN MANAGER
DATE	(DESIGN-BUILD FIRM) PROJECT MANAGER
DATE	VDOT PROJECT MANAGER
DATE	VDOT DISTRICT CONSTRUCTION ENGINEER OR PPTA PROGRAM MANAGER
DATE	CHIEF ENGINEER

APPROVED FOR RIGHT OF WAY ACQUISITION	
DATE	CHIEF OF POLICY

RECOMMENDED FOR APPROVAL FOR CONSTRUCTION	
DATE	(DESIGN-BUILD FIRM) DESIGN MANAGER
DATE	(DESIGN-BUILD FIRM) PROJECT MANAGER
DATE	VDOT PROJECT MANAGER
DATE	VDOT DISTRICT CONSTRUCTION ENGINEER OR PPTA PROGRAM MANAGER

APPROVED FOR CONSTRUCTION	
DATE	CHIEF ENGINEER

Population WASHINGTON COUNTY 54,876 (2010 Census)

STATE PROJECT NO.	SECTION	FEDERAL AID PROJECT NO.	TYPE CODE	UPC NO.	EQUALITIES		LENGTH INCLUDING BRIDGE(S)		LENGTH EXCLUDING BRIDGE(S)		BRIDGE PROJECT NO.	TYPE PROJECT	DESCRIPTION
					FEET		FEET	MILES	FEET	MILES			
0081-095-038	P101	IM-081-1(342)	PENG	107116			1348.95	0.255	1170.09	0.221		PREL. ENG.	FROM: 0.94 MILES NORTHEAST OF RTE. F310 TO: 1.83 MILES SOUTHWEST OF RTE. 611 SPRING CREEK RD.
	RW201	IM-081-1(342)	ROWA	107116			1348.95	0.255	1170.09	0.221		R/W	
	C501	IM-081-1(342)	1000	107116			1348.95	0.255	1170.09	0.221		CONSTR.	
	B675	IM-081-1(342)	XXXX	107116			178.86	0.034				BRIDGE	
	B676	IM-081-1(342)	XXXX	107116			178.86	0.034				BRIDGE	

Project Lengths are based on Rte. I-81 Construction Baseline.

PROJECT MANAGER: John Sprales, VDOT
SURVEYED BY, DATE: _____
DESIGN BY: Whitman, Reardon, & Associates
SUBSURFACE UTILITY BY, DATE: _____

3/4/2016

PROJECT MANAGER *John Sprales, VDOT*
 SURVEYED BY
 DESIGN SUPERVISED BY *Mike Russell, P.E.*
 DESIGNED BY *Whitman, Requardt, & Associates*

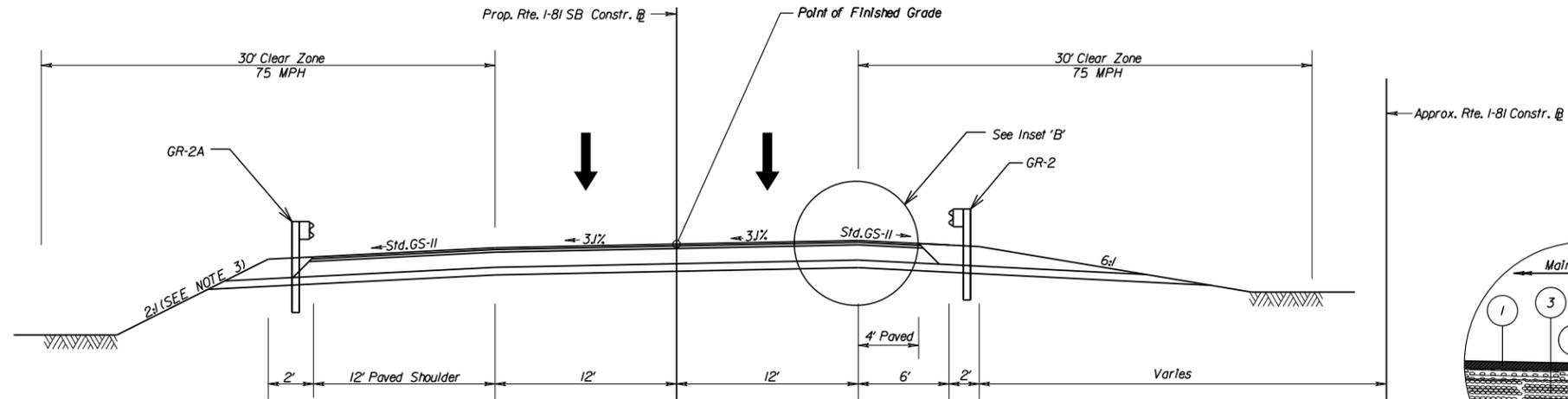
REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	81	0081-095-038 P101, RW201, C501	2A

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

TYPICAL SECTIONS (I-81 BUILD)

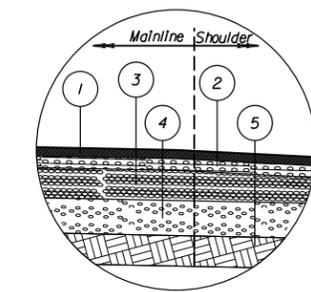
NOTES:

- The I-81 Build typical section will transition to the I-81 Future typical section to match the proposed bridge.
- Benching required at silver fill locations.
- Sta. 315+00 to Sta. 318+53 (Southbound) and Sta. 216+00 to Sta. 217+93 (Northbound) will have a slope of 1.5:1 with geogrid reinforcement.
- Maximum superelevation of 3.1% shown on typical; see plan and profile sheets for details of superelevation transitions.



I-81 over Halls Bottom Road (Southbound)
 Rural Principal Arterial (Freeway) - 75 MPH Design Speed - VDOT Standard GS-1
 Station 314+83.87 to Station 318+83.40
 Station 320+22.00 to Station 322+58.81
 Southbound Section Shows Typical Condition with Guardrail
 Northbound Section Shows Typical Condition without Guardrail

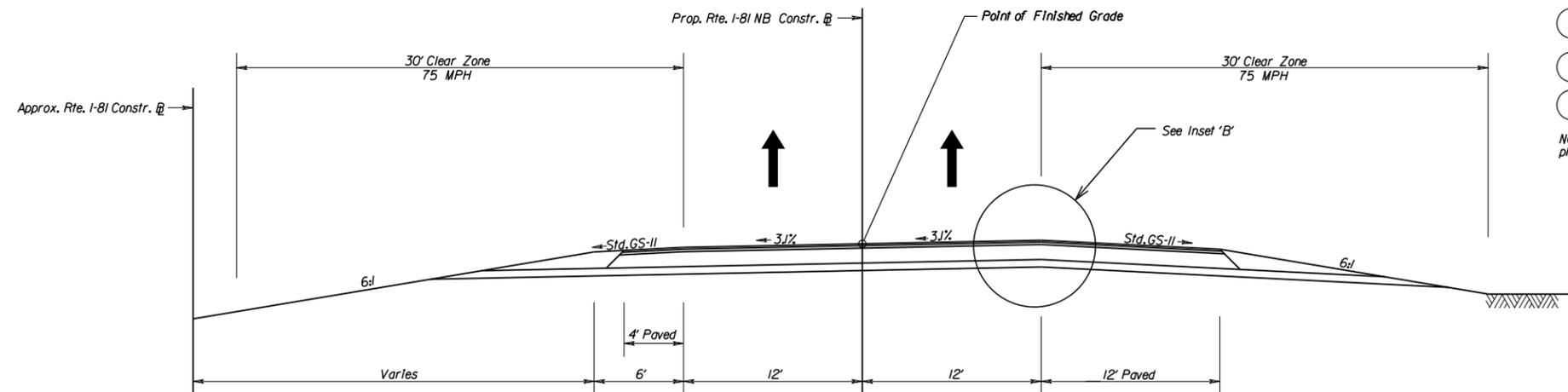
Note: Bridge SBL Construction @
 Sta. 318+83.40 to Sta. 220+22.00



Inset 'B'

- 1 2" Asphalt Concrete Surface Course, Type SM-12.5E @ 220 LBS/SY
- 2 2" Asphalt Concrete Intermediate Course, Type IM-19.0E @ 230 LBS/SY
- 3 10" Asphalt Concrete Base Course, Type BM-25.0A
- 4 12" - 2" Aggregate Base Material, Type I, No. 21B.
- 5 12" Aggregate Material #1

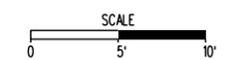
NOTE: Subgrade preparation and reworking of the upper 2 ft of the existing plastic/elastic embankment soils shall be required.



I-81 over Halls Bottom Road (Northbound)
 Rural Principal Arterial (Freeway) - 75 MPH Design Speed - VDOT Standard GS-1
 Station 214+80.56 to Station 218+54.31
 Station 219+94.26 to Station 222+39.97
 Southbound Section Shows Typical Condition with Guardrail
 Northbound Section Shows Typical Condition without Guardrail

Note: Bridge NBL Construction @
 Sta. 218+54.31 to Sta. 219+94.26

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.



PROJECT	SHEET NO.
0081-095-038	2A

3/14/2016

View:
 Printer: awarren
 Creator:

PROJECT MANAGER John Sprales, VDOT
 SURVEYED BY
 DESIGN SUPERVISED BY Mike Russell, P.E.
 DESIGNED BY Whitman, Requist & Associates

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
	VA.	81		0081-095-038 PI01, RW201, C501	3

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

Whitman Requist & Associates
 Richmond, Virginia
 HYDRAULIC ENGINEER

Whitman Requist & Associates
 Richmond, Virginia
 ROADWAY ENGINEER

LEGEND

- Denotes Construction Limits in Cuts
- Denotes Construction Limits in Fills
- Denotes Proposed Pavement
- Denotes Pavement Planing and Build-Up
- Denotes Demolition of Pavement

Note: Figures in brackets and dot-dashed lines denote Permanent Easements.
 Note: Figures in parenthesis and dot-dot-dashed lines denote Temporary Easements.

Curve SBBL301-I
 PI • 312+10.93
 DELTA • 17° 57' 26.26" (LT)
 D • 0' 44' 51"
 T • 1,210.93'
 L • 2,402.00'
 R • 7,664.00'
 PC • 300+00.00
 PT • 324+02.00
 Lr • 98'
 V • 75 MPH
 E • 31%

Curve BL101-I
 PI • 111+38.61
 DELTA • 18° 21' 38.80" (LT)
 D • 0' 44' 51"
 T • 1,238.61'
 L • 2,455.97'
 R • 7,664.00'
 PC • 99+00.00
 PT • 123+55.97
 Lr • 98'
 V • 75 MPH
 E • 31%

Curve NBBL201-I
 PI • 211+04.46
 DELTA • 17° 43' 01.5" (LT)
 D • 0' 44' 51"
 T • 1,194.46'
 L • 2,369.86'
 R • 7,664.00'
 PC • 199+10.00
 PT • 222+79.86
 Lr • 98'
 V • 75 MPH
 E • 31%

Laura H. Queisenberry
 PB55 PG30
 1.43 AC.
 Tax* 143-A-7

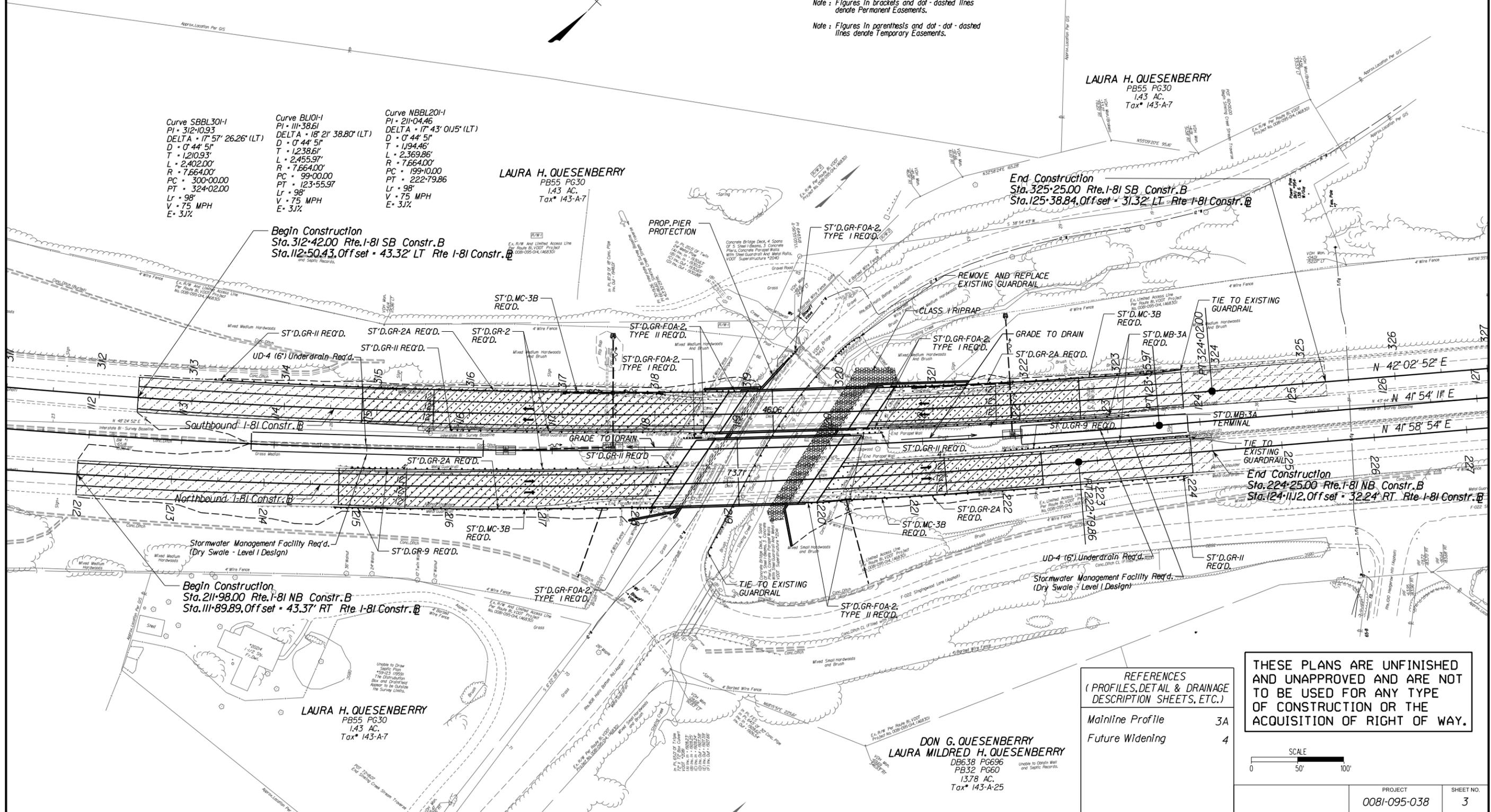
Laura H. Queisenberry
 PB55 PG30
 1.43 AC.
 Tax* 143-A-7

End Construction
 Sta. 325+25.00 Rte. I-81 SB Constr. B
 Sta. 125+38.84, Offset = 31.32' LT Rte. I-81 Constr. B

Begin Construction
 Sta. 312+42.00 Rte. I-81 SB Constr. B
 Sta. 112+50.43, Offset = 43.32' LT Rte. I-81 Constr. B

Begin Construction
 Sta. 211+98.00 Rte. I-81 NB Constr. B
 Sta. 111+89.89, Offset = 43.37' RT Rte. I-81 Constr. B

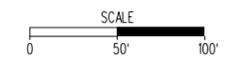
End Construction
 Sta. 224+25.00 Rte. I-81 NB Constr. B
 Sta. 124+11.2, Offset = 32.24' RT Rte. I-81 Constr. B



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

Mainline Profile	3A
Future Widening	4

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.



DON G. QUEISENBERRY
Laura Mildred H. Queisenberry
 DB638 PG696
 PB32 PG60
 13.78 AC.
 Tax* 143-A-25

Laura H. Queisenberry
 PB55 PG30
 1.43 AC.
 Tax* 143-A-7

PROJECT	0081-095-038	SHEET NO.	3
---------	--------------	-----------	---

3/4/2016

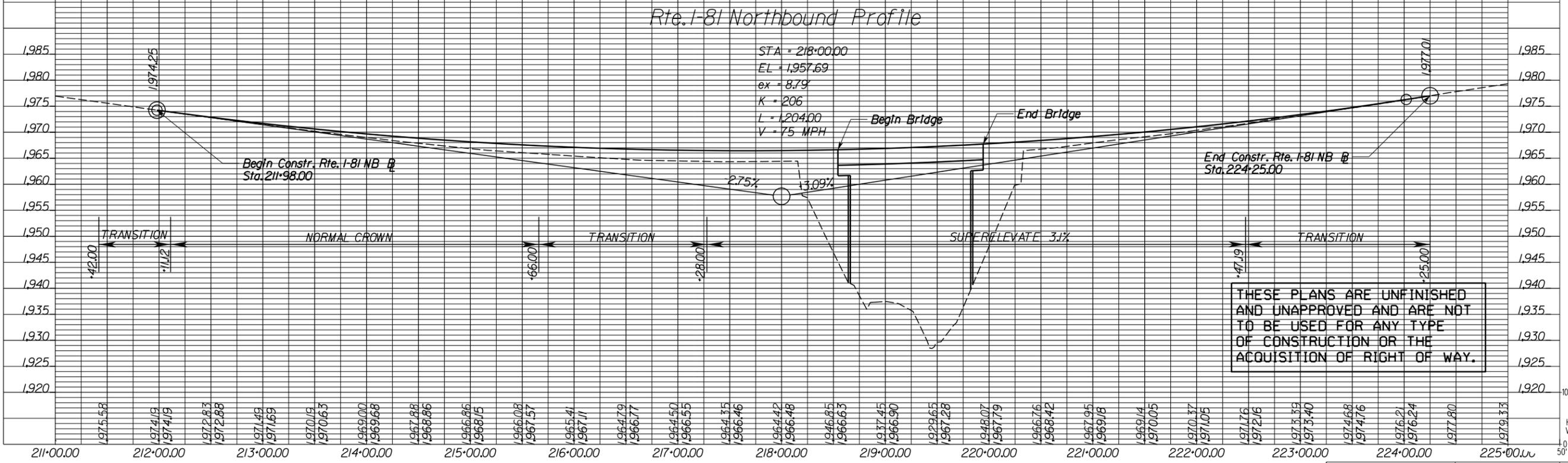
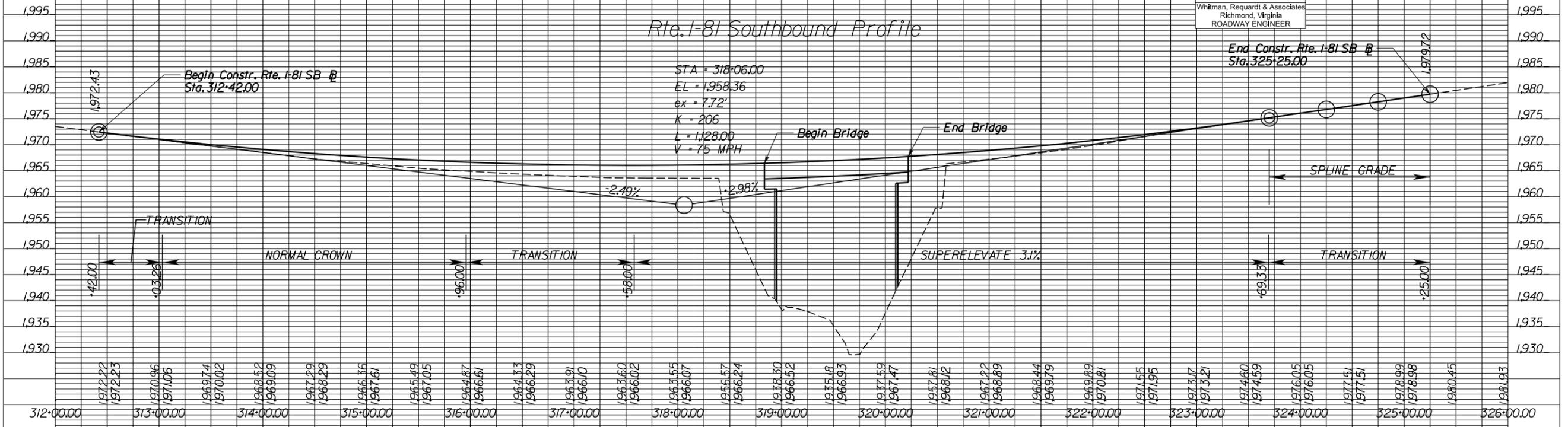
View:
 Printer: awarren
 Creator:

PROJECT MANAGER John Spocoles, VDOT
SURVEYED BY, DATE
DESIGN BY Whitman, Reardon & Associates
SUBSURFACE UTILITY BY, DATE

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	81	0081-095-038 PI01, RW201, C501	3A

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

Whitman, Reardon & Associates
Richmond, Virginia
ROADWAY ENGINEER



THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

SCALE:
HOR. 1"=50'
VERT. 1"=10'

PROJECT MANAGER John Sprales, VDOT
 SURVEYED BY
 DESIGN SUPERVISED BY Mike Russell, P.E.
 DESIGNED BY Whitman, Reuqard, & Associates

Future Third Lane and Associated Construction Limits
 Mainline Improvements Assumed To Continue Beyond Project Limits

LEGEND

- Denotes Construction Limits in Cuts
- Denotes Construction Limits in Fills
- Denotes Proposed Future Pavement Widening

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	81	0081-095-038 PI/OI, RW201, C501	4

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

Whitman Reuqard & Associates Richmond, Virginia HYDRAULIC ENGINEER	Whitman Reuqard & Associates Richmond, Virginia ROADWAY ENGINEER
--	--

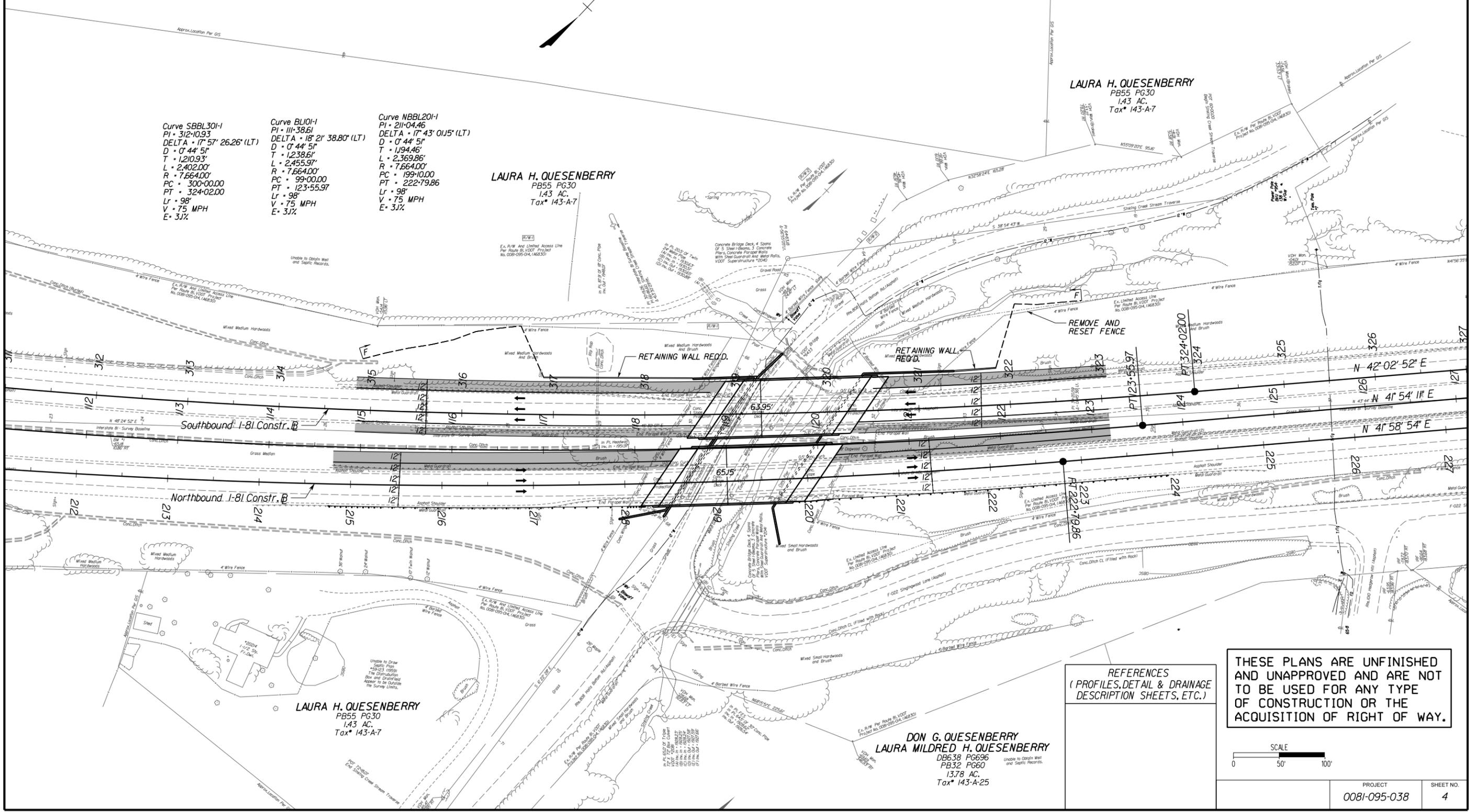
Curve SBBL301-I
 PI • 312+10.93
 DELTA • 17° 57' 26.26" (LT)
 D • 0' 44' 51"
 T • 1,210.93'
 L • 2,402.00'
 R • 7,664.00'
 PC • 300+00.00
 PT • 324+02.00
 Lr • 98'
 V • 75 MPH
 E • 31X

Curve BL101-I
 PI • 111+38.61
 DELTA • 18° 21' 38.80" (LT)
 D • 0' 44' 51"
 T • 1,238.61'
 L • 2,455.97'
 R • 7,664.00'
 PC • 99+00.00
 PT • 123+55.97
 Lr • 98'
 V • 75 MPH
 E • 31X

Curve NBBL201-I
 PI • 211+04.46
 DELTA • 17° 43' 01.15" (LT)
 D • 0' 44' 51"
 T • 1,194.46'
 L • 2,369.86'
 R • 7,664.00'
 PC • 199+10.00
 PT • 222+79.86
 Lr • 98'
 V • 75 MPH
 E • 31X

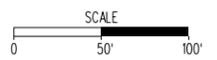
Laura H. Queenberry
 PB55 PG30
 1.43 AC.
 Tax* 143-A-7

Laura H. Queenberry
 PB55 PG30
 1.43 AC.
 Tax* 143-A-7



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

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

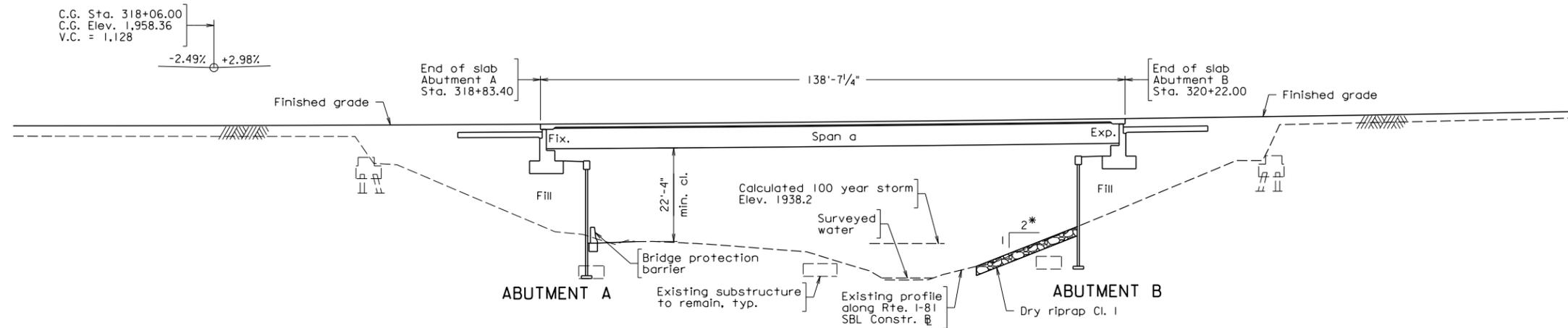


PROJECT	SHEET NO.
0081-095-038	4

3/14/2016

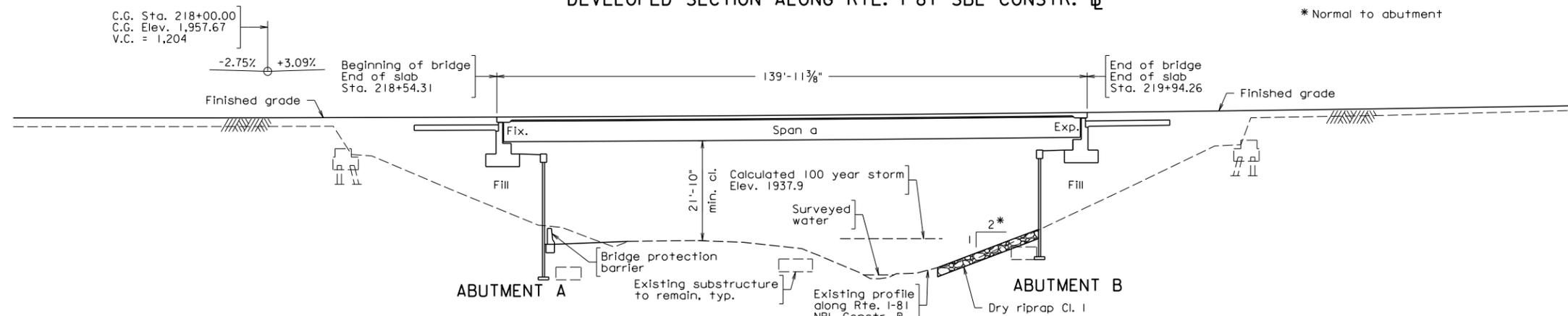
View:
 Printer: awarren
 Creator:

STATE	ROUTE	FEDERAL AID	PROJECT	STATE	ROUTE	PROJECT	SHEET NO.
VA.				81	0081-095-038, B675, B676		2



DEVELOPED SECTION ALONG RTE. I-81 SBL CONSTR. B

* Normal to abutment



DEVELOPED SECTION ALONG RTE. I-81 NBL CONSTR. B

Note: Bridge opening accommodates future widening of Rte. 808 to VDOT Standard GS-4.

WHITMAN REQUARDT & ASSOCIATES
RICHMOND, VA
STRUCTURAL ENGINEER

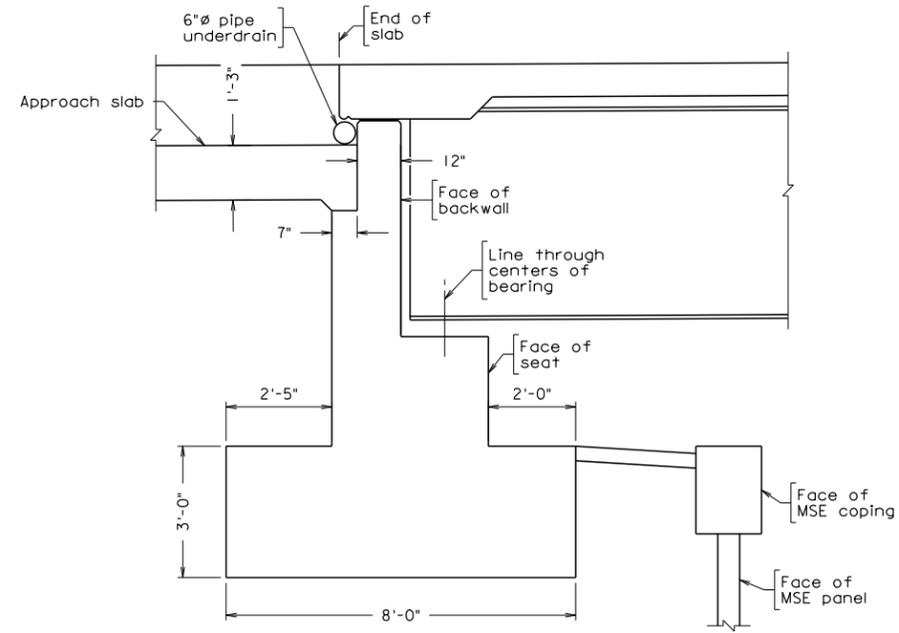
Scale: 1" = 15'-0"

PRELIMINARY PLANS
THESE PLANS NOT TO BE USED
FOR CONSTRUCTION

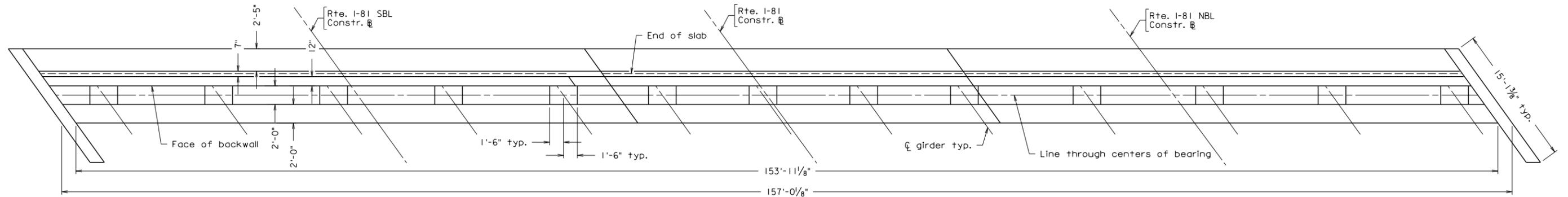
© 2016, Commonwealth of Virginia

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION			
STRUCTURE AND BRIDGE DIVISION			
PROFILE AND GENERAL NOTES			
No.	Description	Date	Revisions
Designed: WRA	Date	Plan No.	Sheet No.
Drawn: WRA	Mar. 2016	??-??	2 of 5
Checked: WRA			

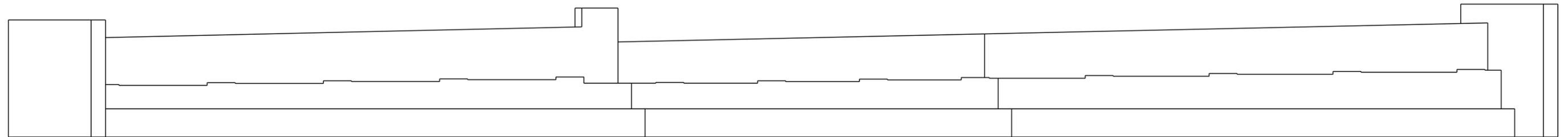
STATE	ROUTE	FEDERAL AID	PROJECT	STATE	ROUTE	PROJECT	SHEET NO.
VA.				81	0081-095-038, B675, B676		4



TYPICAL ABUTMENT SECTION
Scale: 1/2" = 1'-0"



PLAN
(Abutment B shown, Abutment A similar)



ELEVATION
(Abutment B shown, Abutment A similar)

WHITMAN REQUARDT & ASSOCIATES
RICHMOND, VA
STRUCTURAL ENGINEER

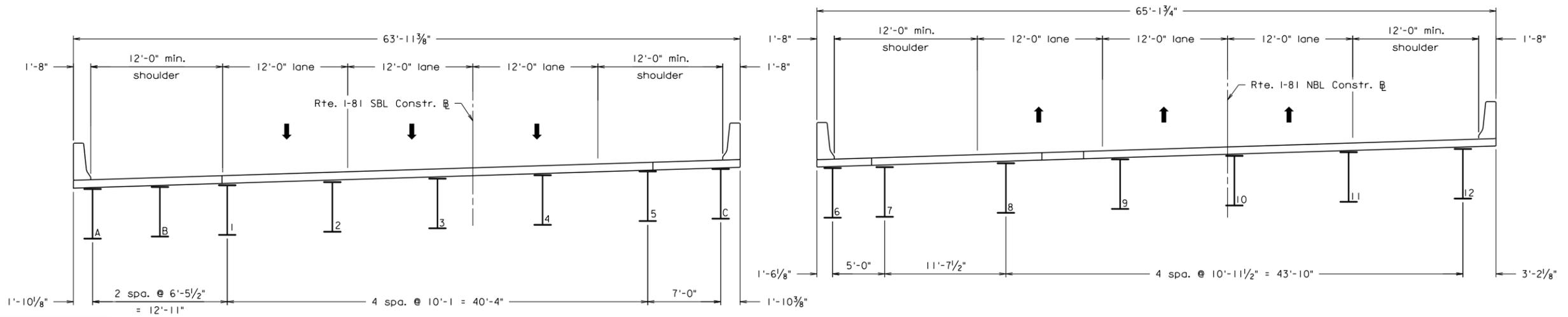
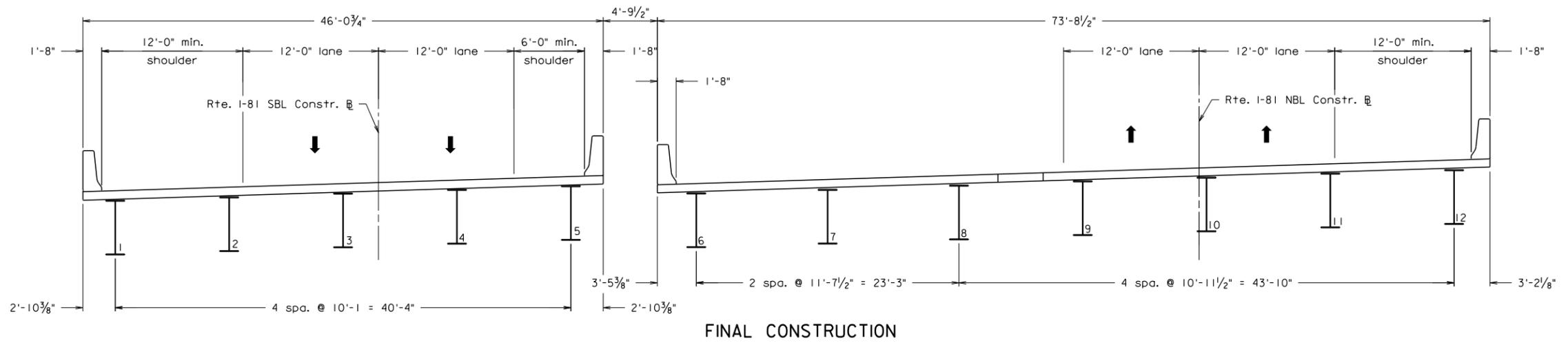
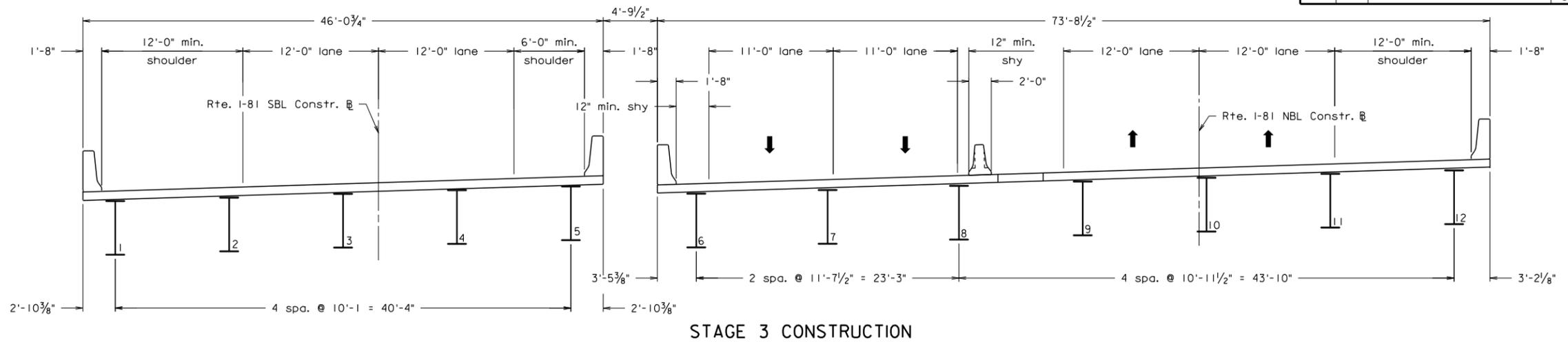
PRELIMINARY PLANS
THESE PLANS NOT TO BE USED
FOR CONSTRUCTION

Scale: 3/16" = 1'-0" unless otherwise noted.

© 2016, Commonwealth of Virginia

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION			
STRUCTURE AND BRIDGE DIVISION			
ABUTMENT DETAILS			
No.	Description	Date	Revisions
Designed: WRA	Drawn: WRA	Checked: WRA	Date: Mar. 2016
Plan No.	Sheet No.	3 of 5	

STATE	FEDERAL AID		STATE		SHEET
ROUTE	PROJECT		ROUTE	PROJECT	NO.
VA.			81	0081-095-038, B675, B676	5



WHITMAN REQUARDT & ASSOCIATES
RICHMOND, VA
STRUCTURAL ENGINEER

PROPOSED FUTURE CONSTRUCTION

PRELIMINARY PLANS
THESE PLANS NOT TO BE USED FOR CONSTRUCTION

Scale: 3/16" = 1'-0" unless otherwise noted.

© 2016, Commonwealth of Virginia

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION			
STRUCTURE AND BRIDGE DIVISION			
SEQUENCE OF CONSTRUCTION 2 OF 2			
No.	Description	Date	Revisions
Designed: WRA	Date: Mar. 2016	Plan No.: ???-???	Sheet No.: 5 of 5
Drawn: WRA			
Checked: WRA			

Activity ID	Activity Name	Critical	Original Duration	BL Project Duration	Start	Finish	Remaining Duration	Actual Duration	Activity % Complete	Total Float	2016												2017												2018											
											M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A						
Proposal Schedule																																														
Administrative																																														
A1000	Design Start - Pre-award activities	<input type="checkbox"/>	10d	10d	25-Mar-16	07-Apr-16	10d	0d	0%	53d																																				
A1400	Notice of Intent to Award	<input type="checkbox"/>	0d	0d	25-Mar-16*		0d	0d	0%	0d																																				
A1410	CTB Approval/Notice to Award	<input type="checkbox"/>	0d	0d	20-Apr-16*		0d	0d	0%	0d																																				
A1420	DB Contract Execution	<input type="checkbox"/>	0d	0d	20-May-16*		0d	0d	0%	0d																																				
A1430	Notice to Proceed	<input checked="" type="checkbox"/>	0d	0d	24-May-16*		0d	0d	0%	0d																																				
A2010	Scope Validation Period	<input type="checkbox"/>	120d	120d	24-May-16	20-Sep-16	120d	0d	0%	714d																																				
A2170	Monthly Stakeholder meetings	<input type="checkbox"/>	420d	420d	24-May-16	18-Jun-18	420d	0d	0%	44d																																				
A1900	Prep Meeting E&S (Hold Point)	<input type="checkbox"/>	0d	0d	15-Jun-16		0d	0d	0%	60d																																				
A1910	Prep Meeting Aggregate Base (Hold Point)	<input type="checkbox"/>	0d	0d	15-Jun-16		0d	0d	0%	105d																																				
A1920	Prep Meeting Asphalt Paving (Hold Point)	<input type="checkbox"/>	0d	0d	15-Jun-16		0d	0d	0%	222d																																				
A1930	Prep Meeting Drainage (Hold Point)	<input type="checkbox"/>	0d	0d	15-Jun-16		0d	0d	0%	72d																																				
A1940	Prep Meeting Clearing and Grubbing (Hold Point)	<input type="checkbox"/>	0d	0d	15-Jun-16		0d	0d	0%	66d																																				
A1950	Prep Meeting Guardrail (Hold Point)	<input type="checkbox"/>	0d	0d	15-Jun-16		0d	0d	0%	365d																																				
A1960	Prep Meeting Bridge Substructure (Hold Point)	<input type="checkbox"/>	0d	0d	15-Jun-16		0d	0d	0%	119d																																				
A1970	Prep Meeting Bridge Superstructure (Hold Point)	<input type="checkbox"/>	0d	0d	15-Jun-16		0d	0d	0%	179d																																				
A1980	Prep Meeting Retaining Wall/MSE Wall (Hold Point)	<input type="checkbox"/>	0d	0d	15-Jun-16		0d	0d	0%	119d																																				
A1990	Prep Meeting MOT (Hold Point)	<input type="checkbox"/>	0d	0d	15-Jun-16		0d	0d	0%	53d																																				
A2000	Prep Meeting Earthwork (Hold Point)	<input type="checkbox"/>	0d	0d	15-Jun-16		0d	0d	0%	72d																																				
A2180	Utility Coordination/Review Meeting	<input type="checkbox"/>	0d	0d		06-Jul-16	0d	0d	0%	11d																																				
A2160	Meeting with Board of Supervisors to Close Halls Bottom Rd	<input type="checkbox"/>	1d	1d	15-Sep-16	15-Sep-16	1d	0d	0%	29d																																				
A1440	No Excuse Incentive Date	<input type="checkbox"/>	0d	0d		06-Jun-18*	0d	0d	0%	0d																																				
A1450	Final Completion	<input checked="" type="checkbox"/>	0d	0d		04-Sep-18*	0d	0d	0%	0d																																				
Survey																																														
A1010	Send Survey Notification Letters	<input type="checkbox"/>	15d	15d	20-May-16	09-Jun-16	15d	0d	0%	14d																																				
A1020	Supplemental Field Survey	<input type="checkbox"/>	10d	10d	10-Jun-16	23-Jun-16	10d	0d	0%	14d																																				
Geotechnical Investigation																																														
A1030	Perform Soil Borings and Lab Work	<input type="checkbox"/>	10d	10d	24-May-16	06-Jun-16	10d	0d	0%	1d																																				
A1040	Prepare Geotechnical Report and Recommendations	<input type="checkbox"/>	18d	18d	07-Jun-16	30-Jun-16	18d	0d	0%	13d																																				
A1050	QA/QC and Submit Geotech Report	<input type="checkbox"/>	5d	5d	01-Jul-16	07-Jul-16	5d	0d	0%	13d																																				
A2020	VDOT Review Geotech Report	<input type="checkbox"/>	21d	21d	08-Jul-16	28-Jul-16	21d	0d	0%	186d																																				
A2060	Revise/Resubmit Geotech Report	<input type="checkbox"/>	10d	10d	02-Aug-16	16-Aug-16	10d	0d	0%	100d																																				
A2070	VDOT Review of revised Geotech Report	<input type="checkbox"/>	21d	21d	17-Aug-16	06-Sep-16	21d	0d	0%	184d																																				
Permitting																																														
A1080	FAA Approval	<input type="checkbox"/>	60d	60d	24-May-16	22-Jul-16	60d	0d	0%	23d																																				
A1060	VSMP Permit	<input type="checkbox"/>	45d	45d	05-Jul-16	18-Aug-16	45d	0d	0%	19d																																				
A1070	Water Quality Permit	<input type="checkbox"/>	45d	45d	05-Jul-16	18-Aug-16	45d	0d	0%	19d																																				
60% Roadway Design and Advance Work Package																																														
A1090	60% Roadway Plans and Advance Work Package	<input type="checkbox"/>	30d	30d	24-May-16	04-Jul-16	30d	0d	0%	7d																																				
A1100	Drainage/SWM/E&S	<input type="checkbox"/>	20d	20d	07-Jun-16	04-Jul-16	20d	0d	0%	7d																																				
A1110	Maintenance of Traffic / TMP	<input type="checkbox"/>	20d	20d	07-Jun-16	04-Jul-16	20d	0d	0%	7d																																				
A1120	Design QA/QC Review of Roadway Plans	<input type="checkbox"/>	5d	5d	05-Jul-16	11-Jul-16	5d	0d	0%	7d																																				
A1130	Prepare Roadway Plans for Submission	<input type="checkbox"/>	2d	2d	12-Jul-16	13-Jul-16	2d	0d	0%	7d																																				
A2030	VDOT Review 60% Plans	<input type="checkbox"/>	21d	21d	14-Jul-16	03-Aug-16	21d	0d	0%	11d																																				
Final Design																																														
A1140	Roadway Plans/Incorporate/Resolve	<input type="checkbox"/>	20d	20d	04-Aug-16	31-Aug-16	20d	0d	0%	38d																																				
A1150	Final Drainage/SWM/E&S	<input type="checkbox"/>	10d	10d	01-Sep-16	14-Sep-16	10d	0d	0%	119d																																				

▬ Primary Baseline
 ▬ Actual Work
 ▬ Critical Remaining Work
 ▬ Summary
 ▬ Second Baseline
 ▬ Remaining Work
 ◆ Milestone



VOLUME 2: Roadway and Bridge Design Concept Plans and Proposal Schedule

A Design-Build Project
Replacement of I-81
Structures 18942 & 18944
Over Route 808 Halls Bottom Road and Sinking Creek
Washington County, Virginia

State Project No.: 0081-095-038, P101, RW201, C501, B675, B676

Federal Project No.: IM-081-1(342)

Contract ID Number: C00107116DB85

Submitted By:



In Conjunction With:



In Association With:

