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VOLUME I TECHNICAL PROPOSAL

Response to Request for Proposals

I-64 HAMPTON ROADS EXPRESS LANES (HREL) SEGMENT 4C

City of Hampton, Virginia

State Project No.: 0064-114-374 P101, R201, C501
Contract ID Number: C00117841DB111

May 12, 2022

Submitted By: Shirley-Branch Joint Venture

SHIRLEY CONTRACTING COMPANY, LLC

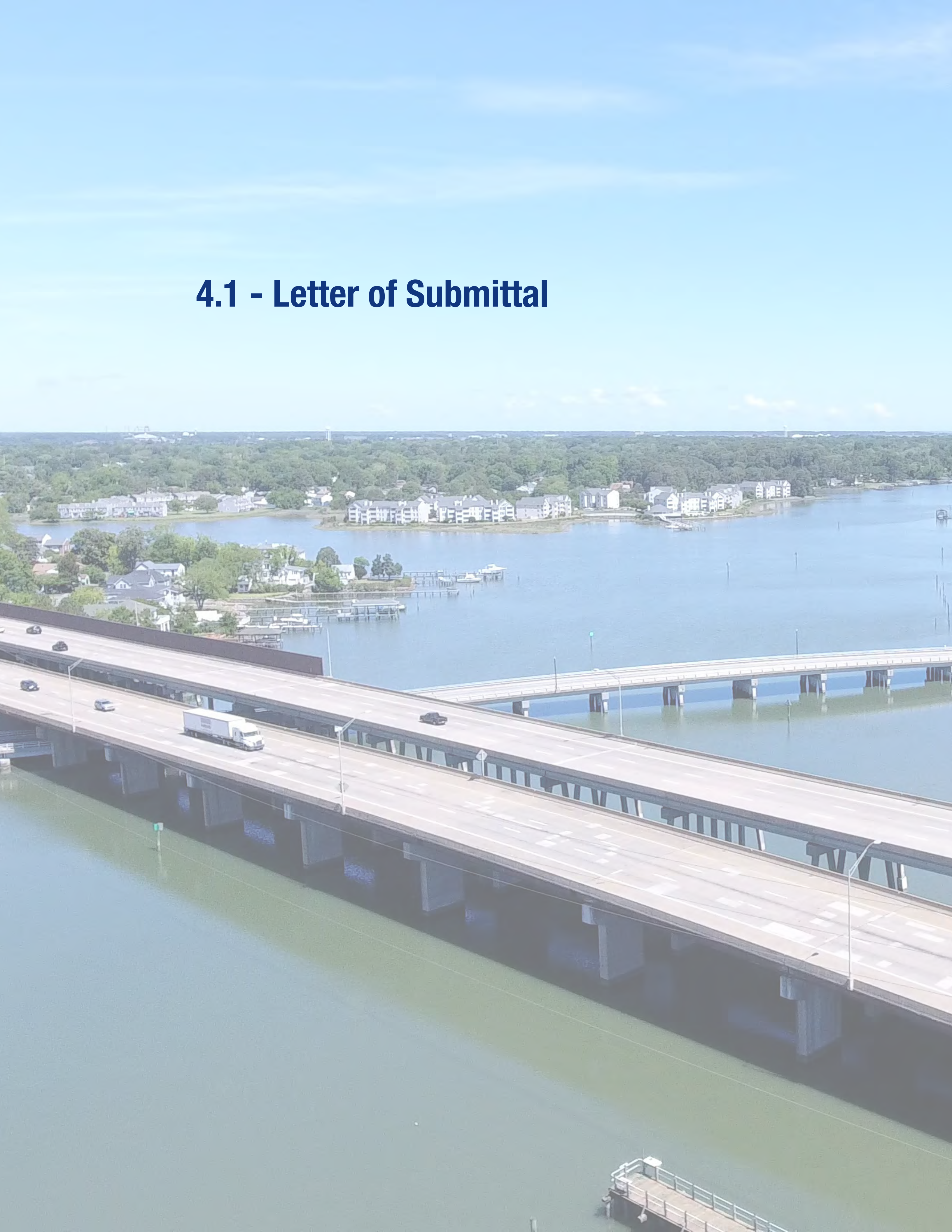
BRANCH CIVIL®

Dewberry®

McLean

STV 100 Years

4.1 - Letter of Submittal



SHIRLEY
CONTRACTING COMPANY, LLC
BRANCH
CIVIL

May 12, 2022

Mr. Suril R. Shah, P.E., DBIA
Alternative Project Delivery Division, Virginia Department of Transportation
1401 East Broad Street, Annex Building 5th Floor
Richmond, Virginia 23219

RE: I-64 Hampton Roads Express Lanes (HREL) Segment 4C, Contract ID No.: C00117841DB111

Dear Mr. Shah:

Shirley-Branch Joint Venture (Shirley-Branch) as the Offeror, and Dewberry Engineers Inc., as the Lead Designer, are pleased to submit our Technical Proposal for the I-64 Hampton Roads Express Lanes Segment 4C Project (the Project).

4.1.2-4.1.3: Should Shirley-Branch be selected it is our intent to enter into a contract with VDOT in accordance with the terms of this Request for Proposal. Further, the offer represented by our Technical and Price Proposals will remain in full force and effect for one hundred twenty (120) days from the date the Price Proposal is submitted to VDOT.

4.1.4 Point of Contact: Garry A. Palleschi, Vice President, Shirley-Branch Joint Venture
8435 Backlick Road, Lorton, Virginia 22079 (P) 703-550-3579
(F) 703-550-9346 (E) gpalleschi@shirleycontracting.com

4.1.5 Principal Officer: Gregory S. Smith, President, Shirley Contracting Company, LLC
8435 Backlick Road, Lorton, Virginia 22079 (P) 703-550-8100

4.1.6 Interim Milestone Date: May 1, 2026
Final Completion Date: December 30, 2026

4.1.7 Unique Milestone Date: November 15, 2026 (Subject to proposed Liquidated Damages of $3,100/per day)

4.1.8: An executed Proposal Payment Agreement is included in the Appendix.

4.1.9: Signed Certification Regarding Debarment Forms from all team members are included as an attachment in the Appendix.

4.1.10: Shirley-Branch commits that we will achieve a 6% DBE participation goal for the entire value of the contract.

4.1.11: We confirm that all commercial and professional registration requirements contained in our Statement of Qualifications are complete and accurate, and that Offeror, and business entities on Offeror's Team remain in good standing with the applicable regulatory bodies and are eligible to provide the services required on the Project.

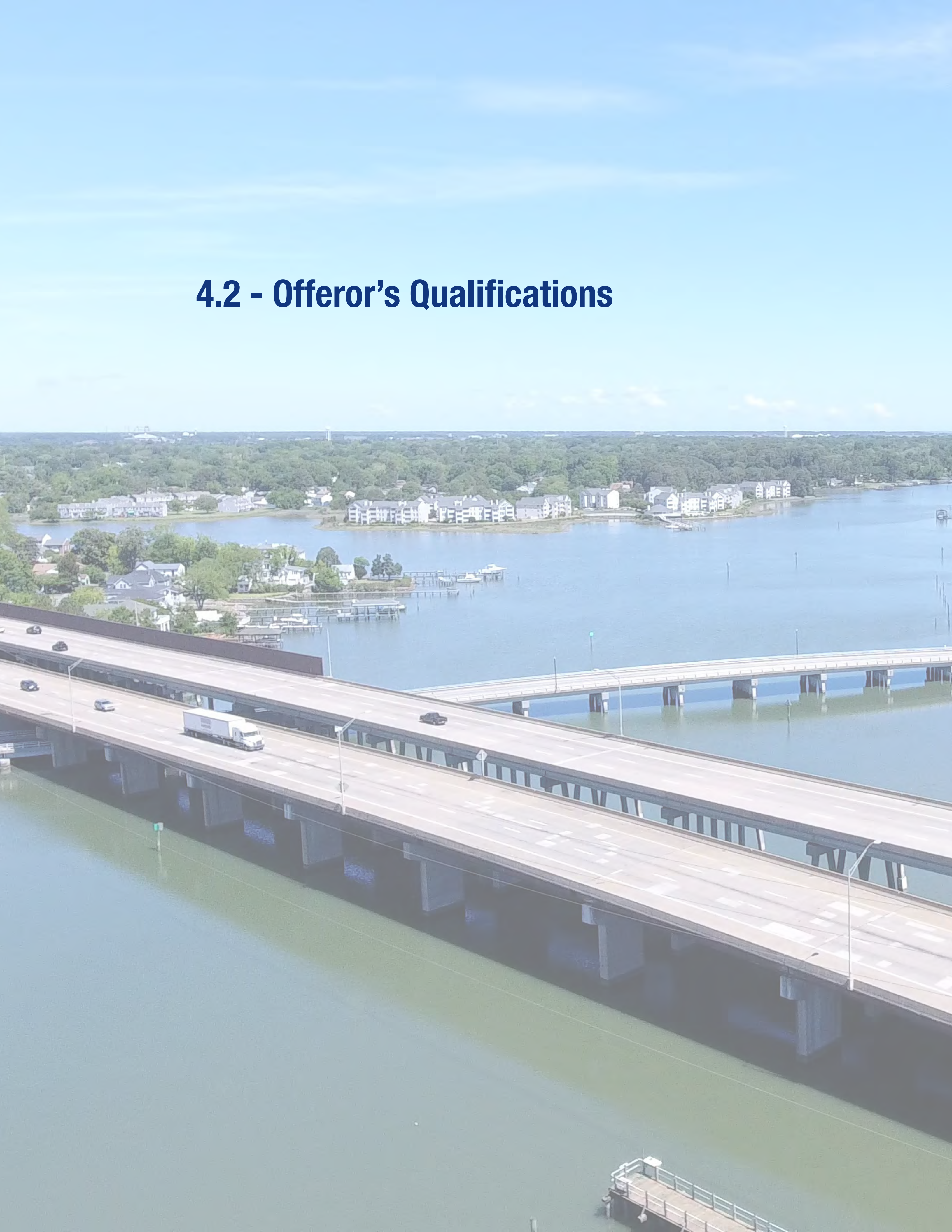
Sincerely,

Brian J. Evans

Garry A. Palleschi
Vice President
Shirley Contracting Company, LLC

Brian Evans
Senior Vice President, Operations
Branch Civil, Inc.

4.2 - Offeror’s Qualifications



4.2 Offeror's Qualifications

4.2.1 Confirmation

We confirm that the information contained in our Statement of Qualifications (SOQ) remains true and accurate, except for the replacement of Tara Dillard with Dave Overton as ECM as Tara is no longer with the company. This change was approved by VDOT on April 8, 2022 in accordance with Part 1, Section 11.4 of the RFP.

Our Team is submitting the following personnel for the Deputy Key Personnel positions:

- Matt Tillotson, PE as Deputy Design-Build Project Manager (DDBPM);
- Matt Thomas, PE as Deputy Design Manager (DDM); and
- Perry Wenger, PE as Deputy Quality Assurance Manager (DQAM).

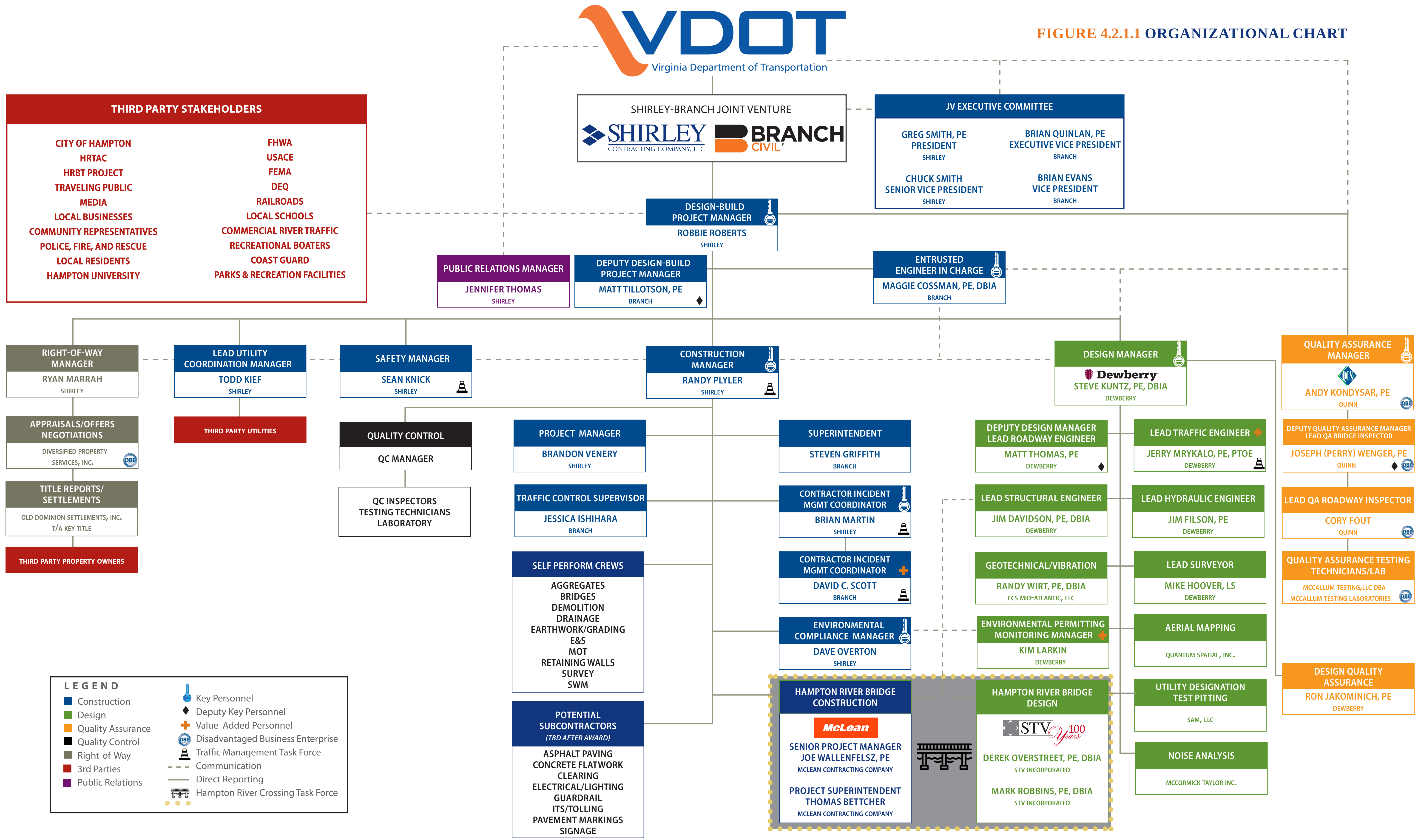
Resumes for each of these Deputy Positions are included in the Appendix.

The Organizational Chart shown in Figure 4.2.1.1 is updated to reflect the addition of the Deputy Key Personnel, the replacement of the ECM described above, and the designation of Brian Martin as the Contractor Incident Management Coordinator (CIMC). Brian was initially proposed in our SOQ as a Value Added Personnel along with David C. Scott as part of our Traffic Management Task Force. As the RFP now requires a named CIMC, we have revised the Organizational Chart to clearly show Brian in this role, with David reporting directly to him.

With the designation of Perry Wenger, PE as DQAM, we have also adjusted the Organizational Chart to show clearly that he reports directly to the QAM.

As there are no other changes to any other functional relationships among the participants since submittal of the SOQ, no further updates to the narrative are required.

FIGURE 4.2.1.1 ORGANIZATIONAL CHART



VDOT
Virginia Department of Transportation

SHIRLEY-BRANCH JOINT VENTURE
SHIRLEY CONTRACTING COMPANY, LLC
BRANCH CIVIL

JV EXECUTIVE COMMITTEE

GREG SMITH, PE
PRESIDENT
SHIRLEY

BRIAN QUINLAN, PE
EXECUTIVE VICE PRESIDENT
BRANCH

CHUCK SMITH
SENIOR VICE PRESIDENT
SHIRLEY

BRIAN EVANS
VICE PRESIDENT
BRANCH

THIRD PARTY STAKEHOLDERS

CITY OF HAMPTON
HRTAC
HRBT PROJECT
TRAVELING PUBLIC
MEDIA
LOCAL BUSINESSES
COMMUNITY REPRESENTATIVES
POLICE, FIRE, AND RESCUE
LOCAL RESIDENTS
HAMPTON UNIVERSITY

FHWA
USACE
FEMA
DEQ
RAILROADS
LOCAL SCHOOLS
COMMERCIAL RIVER TRAFFIC
RECREATIONAL BOATERS
COAST GUARD
PARKS & RECREATION FACILITIES

DESIGN-BUILD PROJECT MANAGER
ROBBIE ROBERTS
SHIRLEY

PUBLIC RELATIONS MANAGER
JENNIFER THOMAS
SHIRLEY

DEPUTY DESIGN-BUILD PROJECT MANAGER
MATT TILLOTSON, PE
BRANCH ◆

ENTRUSTED ENGINEER IN CHARGE
MAGGIE COSSMAN, PE, DBIA
BRANCH

RIGHT-OF-WAY MANAGER
RYAN MARRAH
SHIRLEY

APPRAISALS/OFFERS NEGOTIATIONS
DIVERSIFIED PROPERTY SERVICES, INC. DBE

TITLE REPORTS/ SETTLEMENTS
OLD DOMINION SETTLEMENTS, INC.
T/A KEY TITLE

THIRD PARTY PROPERTY OWNERS

LEAD UTILITY COORDINATION MANAGER
TODD KIEF
SHIRLEY

THIRD PARTY UTILITIES

SAFETY MANAGER
SEAN KNICK
SHIRLEY

QUALITY CONTROL
QC MANAGER

QC INSPECTORS
TESTING TECHNICIANS
LABORATORY

CONSTRUCTION MANAGER
RANDY PLYLER
SHIRLEY

PROJECT MANAGER
BRANDON VENERY
SHIRLEY

TRAFFIC CONTROL SUPERVISOR
JESSICA ISHIHARA
BRANCH

SELF PERFORM CREWS
AGGREGATES
BRIDGES
DEMOLITION
DRAINAGE
EARTHWORK/GRADING
E&S
MOT
RETAINING WALLS
SURVEY
SWM

POTENTIAL SUBCONTRACTORS
(TBD AFTER AWARD)
ASPHALT PAVING
CONCRETE FLATWORK
CLEARING
ELECTRICAL/LIGHTING
GUARDRAIL
ITS/TOLLING
PAVEMENT MARKINGS
SIGNAGE

SUPERINTENDENT
STEVEN GRIFFITH
BRANCH

CONTRACTOR INCIDENT MGMT COORDINATOR
BRIAN MARTIN
SHIRLEY

CONTRACTOR INCIDENT MGMT COORDINATOR ✚
DAVID C. SCOTT
BRANCH

ENVIRONMENTAL COMPLIANCE MANAGER
DAVE OVERTON
SHIRLEY

HAMPTON RIVER BRIDGE CONSTRUCTION
McLean
SENIOR PROJECT MANAGER
JOE WALLENFELSZ, PE
MCLEAN CONTRACTING COMPANY

PROJECT SUPERINTENDENT
THOMAS BETTCHER
MCLEAN CONTRACTING COMPANY

HAMPTON RIVER BRIDGE DESIGN
STV 100 Years
DEREK OVERSTREET, PE, DBIA
STV INCORPORATED

MARK ROBBINS, PE, DBIA
STV INCORPORATED

DESIGN MANAGER
Dewberry
STEVE KUNTZ, PE, DBIA
DEWBERRY

DEPUTY DESIGN MANAGER LEAD ROADWAY ENGINEER
MATT THOMAS, PE
DEWBERRY ◆

LEAD TRAFFIC ENGINEER ✚
JERRY MRYKALO, PE, PTOE
DEWBERRY

LEAD STRUCTURAL ENGINEER
JIM DAVIDSON, PE, DBIA
DEWBERRY

LEAD HYDRAULIC ENGINEER
JIM FILSON, PE
DEWBERRY

GEOTECHNICAL/VIBRATION
RANDY WIRT, PE, DBIA
ECS MID-ATLANTIC, LLC

LEAD SURVEYOR
MIKE HOOVER, LS
DEWBERRY

ENVIRONMENTAL PERMITTING MONITORING MANAGER ✚
KIM LARKIN
DEWBERRY

AERIAL MAPPING
QUANTUM SPATIAL, INC.

UTILITY DESIGNATION TEST PITTING
SAM, LLC

NOISE ANALYSIS
MCCORMICK TAYLOR INC.

QUALITY ASSURANCE MANAGER
QCS
ANDY KONDYSAR, PE
QUINN DBE

DEPUTY QUALITY ASSURANCE MANAGER LEAD QA BRIDGE INSPECTOR
JOSEPH (PERRY) WENGER, PE
QUINN ◆ DBE

LEAD QA ROADWAY INSPECTOR
CORY FOUT
QUINN DBE

QUALITY ASSURANCE TESTING TECHNICIANS/LAB
MCCALLUM TESTING,LLC DBA
MCCALLUM TESTING LABORATORIES DBE

DESIGN QUALITY ASSURANCE
RON JAKOMINICH, PE
DEWBERRY

LEGEND

- 🟦 Construction
- 🟩 Design
- 🟧 Quality Assurance
- ⬛ Quality Control
- ▨ Right-of-Way
- 🟥 3rd Parties
- 🟪 Public Relations

- Key Personnel
- ◆ Deputy Key Personnel
- ✚ Value Added Personnel
- DBE Disadvantaged Business Enterprise
- Traffic Management Task Force
- - - - Communication
- —— Direct Reporting
- Hampton River Crossing Task Force

4.3 - Design Concept

4.3 Design Concept

Introduction

The I-64 Hampton Roads Express Lanes (HREL) Segment 4C Project (the Project) is a unique, challenging, and excellent opportunity to implement the benefits of the design-build method of delivery, and one that our Team is well prepared for. From the over $5 billion in design-build experience of our joint venture partners, engineers, and consultants, to our dedicated marine bridge subcontractor, to our extended VDOT history in the Hampton Roads region, our Team is well positioned to achieve the VDOT priorities set for success including:

- Lowest price;
- Efficient design;
- Constructability that minimizes impacts; and
- A risk mitigating approach.

As soon as the RFP was released, it became apparent to our Team that success requires a fully integrated approach involving all disciplines at every phase. Key to developing our Design Concept was a thorough understanding of the schedule, permitting requirements, existing utilities, available right-of-way (ROW), and construction impacts. From there, we employed an iterative process to tailor the design to meet RFP design criteria, ensure constructability, maximize safety, and minimize impacts to the public.

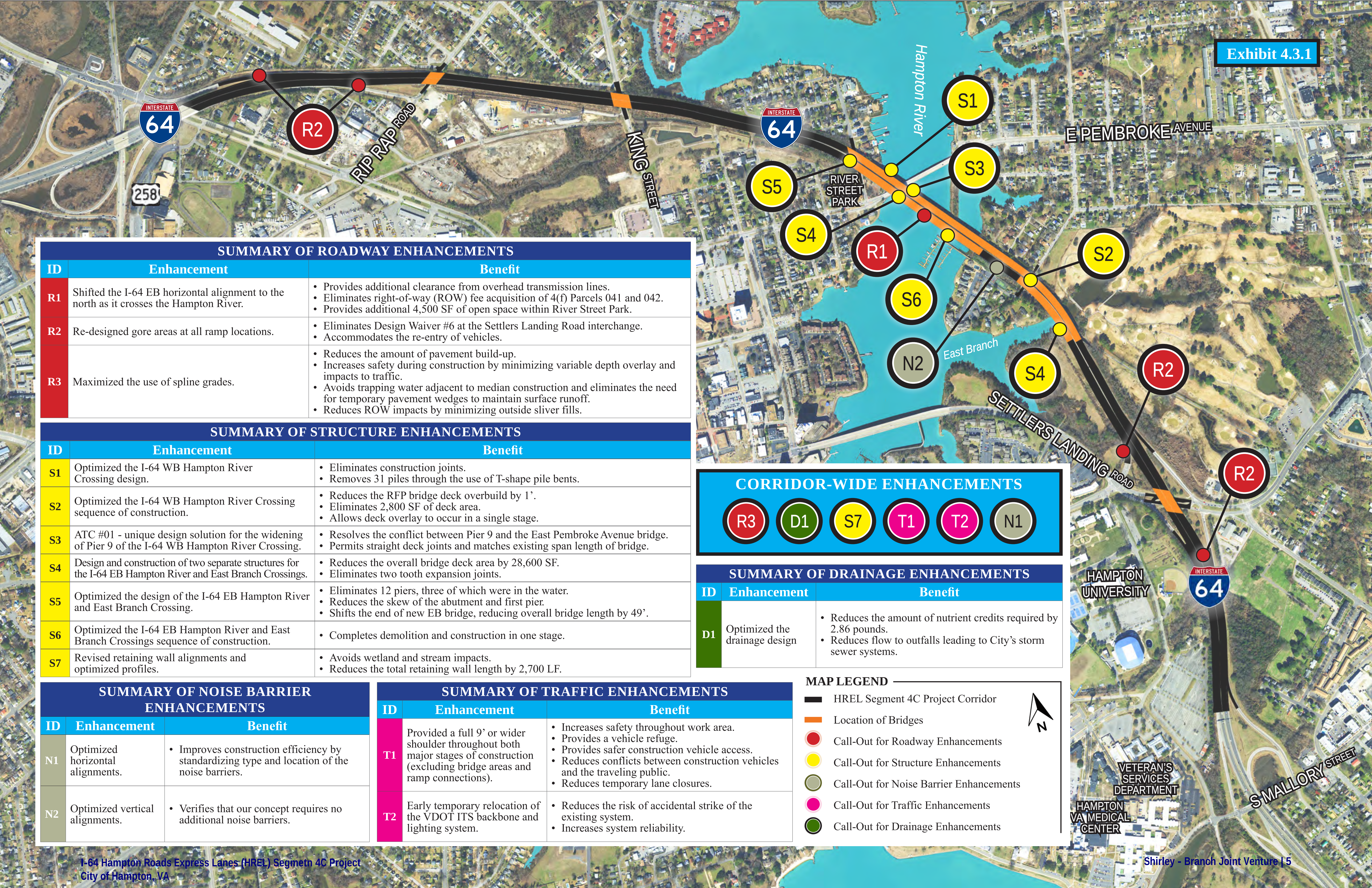
Our collaborative approach included weekly Team meetings where all aspects of our Technical Proposal and the RFP were discussed among all disciplines. In addition, we formed Technical Working Groups (TWGs) comprised of topic experts, also meeting at least weekly, to focus on specific areas of risk and development of mitigation solutions and strategies. As demonstrated in this Technical Proposal, our Team arrived at a Design Concept that incorporates numerous enhancements which:

- Improves safety for the public, motorists, construction/inspection personnel, and VDOT;
- Maintains mobility during construction;
- Reduces impacts to properties;
- Minimizes environmental impacts; and
- Reduces VDOT's long-term maintenance.

A summary of these enhancements is shown on Exhibit 4.3.1 and depicted in our Volume II – Design Concept. Additionally, our Team's Concept includes *ATC #01 – Unique Design Solution to Avoid Conflict with the Widening of Pier 9 on the I-64 Bridge over Hampton River and the Existing Substructure for the East Pembroke Avenue Bridge over the Hampton River* (ATC#01) in the Appendix. We also confirm that our Design Concept:

- Meets or exceeds all requirements listed in the Design Criteria Table;
- Is wholly contained within the right-of-way limits shown in the RFP Conceptual Plans with the exception of temporary construction, permanent drainage, and utility easements, other than permanent drainage easements for stormwater management facilities; and
- Does not include design elements that require Design Exceptions and/or Design Waivers unless they are identified or included in the RFP or Addendum.

Exhibit 4.3.1



SUMMARY OF ROADWAY ENHANCEMENTS

ID	Enhancement	Benefit
R1	Shifted the I-64 EB horizontal alignment to the north as it crosses the Hampton River.	• Provides additional clearance from overhead transmission lines. • Eliminates right-of-way (ROW) fee acquisition of 4(f) Parcels 041 and 042. • Provides additional 4,500 SF of open space within River Street Park.
R2	Re-designed gore areas at all ramp locations.	• Eliminates Design Waiver #6 at the Settlers Landing Road interchange. • Accommodates the re-entry of vehicles.
R3	Maximized the use of spline grades.	• Reduces the amount of pavement build-up. • Increases safety during construction by minimizing variable depth overlay and impacts to traffic. • Avoids trapping water adjacent to median construction and eliminates the need for temporary pavement wedges to maintain surface runoff. • Reduces ROW impacts by minimizing outside sliver fills.

SUMMARY OF STRUCTURE ENHANCEMENTS

ID	Enhancement	Benefit
S1	Optimized the I-64 WB Hampton River Crossing design.	• Eliminates construction joints. • Removes 31 piles through the use of T-shape pile bents.
S2	Optimized the I-64 WB Hampton River Crossing sequence of construction.	• Reduces the RFP bridge deck overbuild by 1'. • Eliminates 2,800 SF of deck area. • Allows deck overlay to occur in a single stage.
S3	ATC #01 - unique design solution for the widening of Pier 9 of the I-64 WB Hampton River Crossing.	• Resolves the conflict between Pier 9 and the East Pembroke Avenue bridge. • Permits straight deck joints and matches existing span length of bridge.
S4	Design and construction of two separate structures for the I-64 EB Hampton River and East Branch Crossings.	• Reduces the overall bridge deck area by 28,600 SF. • Eliminates two tooth expansion joints.
S5	Optimized the design of the I-64 EB Hampton River and East Branch Crossing.	• Eliminates 12 piers, three of which were in the water. • Reduces the skew of the abutment and first pier. • Shifts the end of new EB bridge, reducing overall bridge length by 49'.
S6	Optimized the I-64 EB Hampton River and East Branch Crossings sequence of construction.	• Completes demolition and construction in one stage.
S7	Revised retaining wall alignments and optimized profiles.	• Avoids wetland and stream impacts. • Reduces the total retaining wall length by 2,700 LF.

CORRIDOR-WIDE ENHANCEMENTS

R3 D1 S7 T1 T2 N1

SUMMARY OF DRAINAGE ENHANCEMENTS

ID	Enhancement	Benefit
D1	Optimized the drainage design	• Reduces the amount of nutrient credits required by 2.86 pounds. • Reduces flow to outfalls leading to City's storm sewer systems.

SUMMARY OF NOISE BARRIER ENHANCEMENTS

ID	Enhancement	Benefit
N1	Optimized horizontal alignments.	• Improves construction efficiency by standardizing type and location of the noise barriers.
N2	Optimized vertical alignments.	• Verifies that our concept requires no additional noise barriers.

SUMMARY OF TRAFFIC ENHANCEMENTS

ID	Enhancement	Benefit
T1	Provided a full 9' or wider shoulder throughout both major stages of construction (excluding bridge areas and ramp connections).	• Increases safety throughout work area. • Provides a vehicle refuge. • Provides safer construction vehicle access. • Reduces conflicts between construction vehicles and the traveling public. • Reduces temporary lane closures.
T2	Early temporary relocation of the VDOT ITS backbone and lighting system.	• Reduces the risk of accidental strike of the existing system. • Increases system reliability.

MAP LEGEND

▬	HREL Segment 4C Project Corridor
▬	Location of Bridges
●	Call-Out for Roadway Enhancements
●	Call-Out for Structure Enhancements
●	Call-Out for Noise Barrier Enhancements
●	Call-Out for Traffic Enhancements
●	Call-Out for Drainage Enhancements

4.3.1 Conceptual Roadway Plans

Completion of this Project will provide an 8-lane typical section consisting of two general purpose lanes and two high-occupancy toll (HOT) lanes in each direction for a majority of the Project limits. One HOT lane will be provided in each direction between Armistead Avenue and just east of the Rip Rap Road overpass where the second eastbound (EB) HOT lane will be introduced. The second westbound (WB) HOT lane will end just east of the King Street overpass. These improvements will connect to the work currently taking place as part of the Hampton Roads Bridge Tunnel (HRBT) Expansion Project and will substantially improve operations and increase capacity in the region.

(a) General Geometry

The general geometry of our Team's concept is depicted on our Volume II – Design Concept including horizontal curve data, number and widths of lanes and shoulders, superelevation rates, and design speeds. Improvements to I-64 have been designed for a 60 mph design speed in accordance with GS-INT criteria to provide an 8-lane typical section utilizing 12' travel lanes. Shoulder widths are generally 12' wide, but vary to as narrow as 6' on the outside shoulders and 2' on the inside shoulders in accordance with previously approved design exceptions and design waivers. In addition to improvements to I-64, interchange ramp improvements are incorporated to accommodate the interstate widening and gore area modifications. Ramp widths vary from 16' to 18' for single lane ramps, to as wide as 48' for the 4-lane EB exit ramp to Settlers Landing Road. Ramp right paved shoulder widths are generally 10' wide, and left paved shoulders are generally 6' wide, except where design exceptions or design waivers have already been approved. Interchange ramp design speeds vary from 25 mph to 35 mph, consistent with the RFP Conceptual Plans and the Design Criteria Table.

(b) Horizontal Alignments

The horizontal alignments proposed are similar to the RFP concept and remain within the existing and proposed ROW. However, creating additional clearance to the overhead transmission lines adjacent to the EB Hampton River and East Branch crossings improves construction safety and provides other benefits. Accordingly, our Concept shifts the alignment of EB Hampton River and East Branch crossings such that the proposed horizontal shift maintains the minimum 12' separation from the WB bridge between River Street and the eastern bank of the Hampton River, per Part 2, Section 2.3.4. This shift increases the offset to the transmission lines by approximately 17' and places the entirety of the EB bridge within existing ROW and Limited Access across the Hampton River. Not only does this improve safety, constructability, and construction access, it also simplifies the right-of-way process, minimizes impacts to the river, improves utility avoidance efforts, and increases the safety for VDOT's long-term maintenance activities. Figure 4.3.1.1 depicts the revised horizontal alignment.

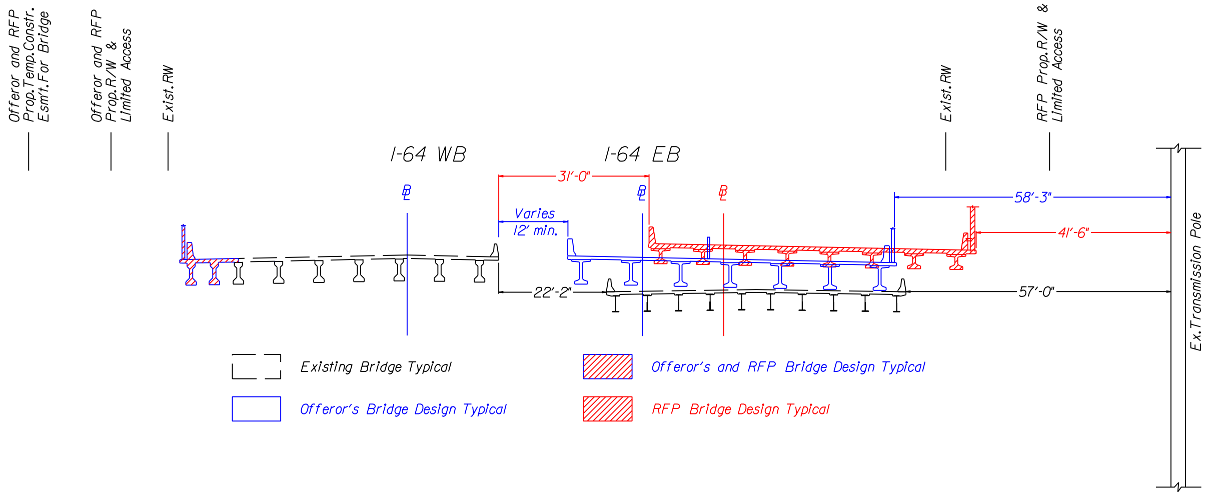


Figure 4.3.1.1 - Revised EB Hampton River Bridge Alignment

Horizontal alignments for the interchange ramps are consistent with those identified in the RFP with the exception of improvements to the ramp gore designs to incorporate standard layouts per VDOT Road Design Manual requirements. By reconfiguring the gore areas, our Concept will improve safety and operations by accommodating re-entry of vehicles should motorists make a late decision to not exit the interstate. Further, ***our enhancement eliminates the need for Design Waiver No. 6*** at the Settlers Landing Road interchange.

(c) Maximum Grades

The improvements to I-64 generally consist of widening the existing pavement to provide additional travel lanes. Since the existing pavement is relatively free of undulations, this lends the vertical profiles to utilizing spline grades which mimic existing conditions. Similar to our Team's successful approach on other recently completed sections of I-64, we have developed the spline grades to reflect existing profiles and minimize vertical adjustments necessary to implement cross-slope adjustments. This enhancement minimizes variable depth overlays, reduces schedule risk, improves temporary drainage, enhances safety, reduces impacts to motorists, and decreases Project cost.

In addition, our Concept adjusts the profile of EB I-64 over the Hampton River and East Branch to more closely mimic existing conditions while also providing the required stopping sight distance and minimum clearances over the water. Minimal ramp profile adjustments have been incorporated based on the revised gore layouts and improved I-64 profiles. Maximum grades for each alignment are identified in Table 1, all of which are less than the maximum grades allowed by VDOT and AASHTO criteria.

Table 1 - Maximum Grades

Alignment	Allowable Maximum Grade	Proposed Maximum Grade
EB I-64	4.00%	3.28%
WB I-64	4.00%	3.04%
I-64 WB Exit to Armistead Avenue	4.00%	2.34%
I-64 EB Exit to Rip Rap Road	4.00%	0.51%
I-64 EB Exit to Settlers Landing Road	5.00%	3.60%
I-64 EB Entrance from Settlers Landing Road	5.00%	2.76%
I-64 WB Entrance from Settlers Landing Road	5.00%	2.76%
I-64 WB Exit to Settlers Landing Road	4.00%	1.91%
I-64 WB Entrance from Mallory Street	4.00%	1.32%

(d) Typical Sections

Typical sections for each of the roadways, ramps, and bridges are included in our Volume II – Design Concept.

(e) Conceptual Hydraulic and Stormwater Management Design

Hydraulic Design

Our Team's hydraulic design improvements incorporate a range of facility types including open channels, ditches, closed-system storm sewers, culverts, and underdrains. All of these facilities will be used to convey flow to adequate outfalls and/or major channels while avoiding impacts to sensitive areas.

The typical sections proposed for I-64 result in all pavement sloping towards the outside shoulders in tangent areas, reducing the amount of runoff which is directed towards the narrow median shoulders. In areas where superelevated sections direct pavement runoff towards the median, our drainage design avoids water spread in the travel lane in the permanent configuration. Closely spaced drainage structures will be located along the WB lanes adjacent to the narrow median shoulder to intercept pavement runoff. In the EB direction, our Concept includes closely spaced inlets and trench drains to address runoff spread challenges. Along the outsides of I-64, existing channels and ditches will be maintained to convey drainage to existing outfalls while avoiding extensive wetland and stream impacts. The profile adjustments described in Section 4.3.1 (c) beneficially reduce grading impacts and retaining wall lengths and thereby maintain existing drainage patterns.

In addition to the roadway hydraulic design, our roadway and bridge designs have accounted for the unique hydrology associated with Bright's Creek, as well as the Hydrologic and Hydraulic Analysis (H&HA) and scour analysis for the proposed bridges over Hampton River and East Branch.

Stormwater Management

Stormwater management design will be in accordance with Part IIC Technical Criteria and will recognize that improvements fall within both the Southwest Branch Back River (CB23) and Frontal Hampton Roads-Hampton River (JL58) Hydrologic Unit Codes (HUC-6). With our Concept's horizontal alignment and storm drainage enhancements, our preliminary analysis indicates that stormwater management treatment of 3.7 lbs and 14.55 lbs are required from CB23 and JL58, respectively. ***This total treatment requirement of 18.25 lbs is 2.86 lbs less than identified in the RFP documents.*** Since VDOT has already reserved nutrient credits for this Project, our Team's savings will enable VDOT to utilize those remaining credits on other projects. As outlined in the RFP, all stormwater treatment will be completed through the purchase of nutrient credits, therefore, construction of on-site stormwater management facilities is not required.

In addition to stormwater management, fifteen existing outfalls will receive runoff and detailed adequate outfall analyses will be completed for each location to address water quantity requirements, and to comply with Erosion & Sediment Control (ESC) regulations and minimum standards. Outfalls into man-made systems will be reduced in the post-construction conditions, and most of the natural outfalls flow to channels where the site area is less than 1% of the total drainage area. These channels are Southwest Branch Back River, Bright's Creek, Hampton River, East Branch, Jones Creek, John's Creek, and north of Emancipation Drive. Based on our drainage design and the number of outfall locations, we do not expect to construct any stormwater detention facilities to address water quantity requirements.

(f) Proposed Right-of-Way Limits

Our Team's Concept to revise the horizontal alignment of EB I-64 locates the entirety of the proposed bridge within existing ROW. This adjustment ***avoids fee-simple ROW acquisition on Parcels 041 and 042, both of which are 4(f) properties*** containing the River Street Park. While temporary construction impacts will still be necessary on these properties to construct the proposed bridge improvements, our Concept's easements fall within the limits of the RFP proposed ROW, avoiding acquisition of additional temporary impacts which would have been required by the RFP concept.

Additionally, the ROW acquisition depicted in the RFP across the Hampton River has been eliminated. This results in a ***reduction of fee-simple right-of-way acquisition of 0.60 acres.*** Further reductions in permanent and temporary easements are expected throughout the corridor based on refinements to vertical profiles and adjustments to retaining walls and noise barriers. Locations of ROW and easement reductions are shown hatched on our Volume II – Design Concept, and Figure 4.3.1.2 highlights the ROW reduction on Parcels 041 and 042.

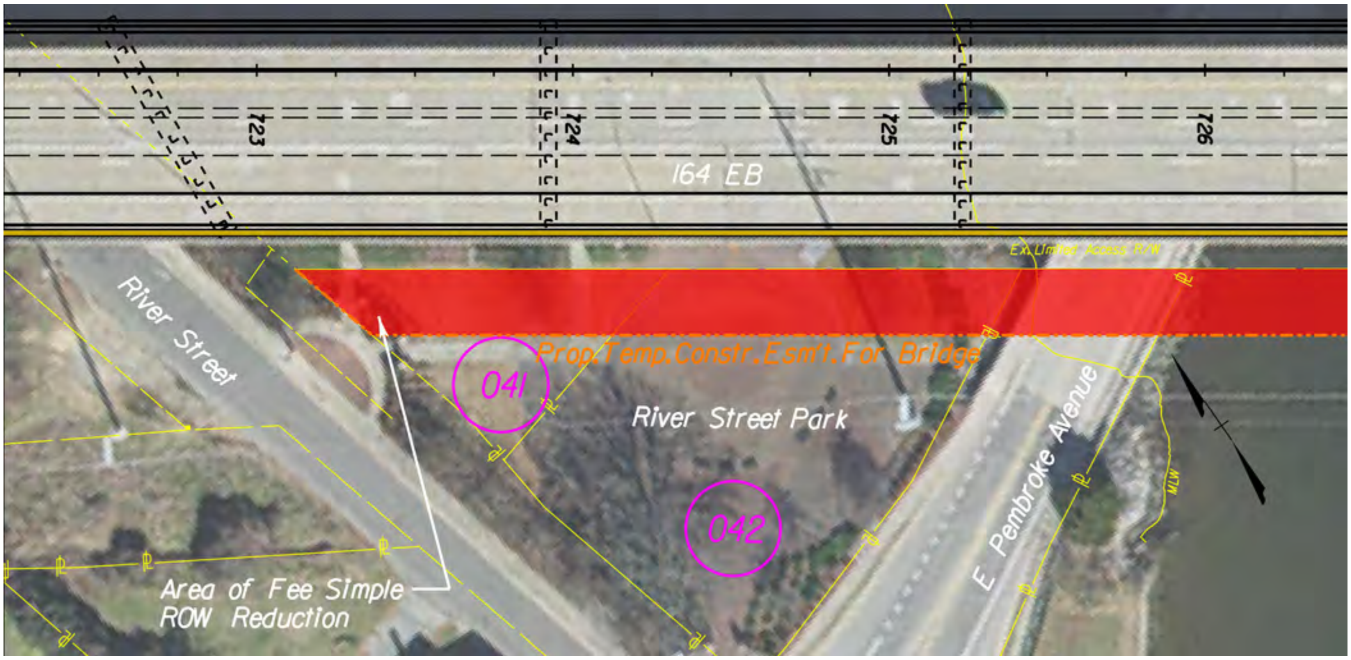


Figure 4.3.1.2 - Reduction in Right-of-Way on Parcels 041 and 042

(g) Proposed Utility Impacts

Proposed utility impacts and our approach to mitigating them are described in Section 4.4.2.

(h) Noise Barrier Locations

As required by the RFP, our Team's Proposal includes 162,153 square feet (SF) of ground-mounted noise barrier and 46,726 SF of bridge-mounted noise barrier. Our Team is implementing vertical profile adjustments on EB I-64 and therefore reviewed the noise model to ensure these enhancements would not introduce the need for additional or taller noise barriers. Modeling efforts were completed to compare the RFP profiles to our proposed profiles, and we have confirmed that the noise barrier heights and areas identified in the RFP remain adequate to provide the required noise attenuation. Further, no additional noise barrier(s) are required between the EB and WB lanes to prevent noise from carrying from the WB bridge over the EB bridge. Accordingly, no additional noise barrier areas, locations, or costs are required by our Concept.

As noise barrier designs are finalized, we will locate ground-mounted noise barriers adjacent to shoulders and in accordance with *VDOT Road Design Manual* requirements. Lower portions of ground-mounted noise barriers will incorporate retaining panels in several areas to eliminate sliver fills and associated environmental and easement impacts. In areas where more extensive retained heights are required, combination retaining walls/noise barriers will be utilized as shown in Figure 4.3.1.3. By combining the retaining wall and noise barrier and locating it behind the concrete barrier per the standard *Road Design Manual* typical section, we are able to eliminate the retaining wall and moment slab, utilize standard drop inlets and longitudinal pipe alignments, and reduce construction costs.

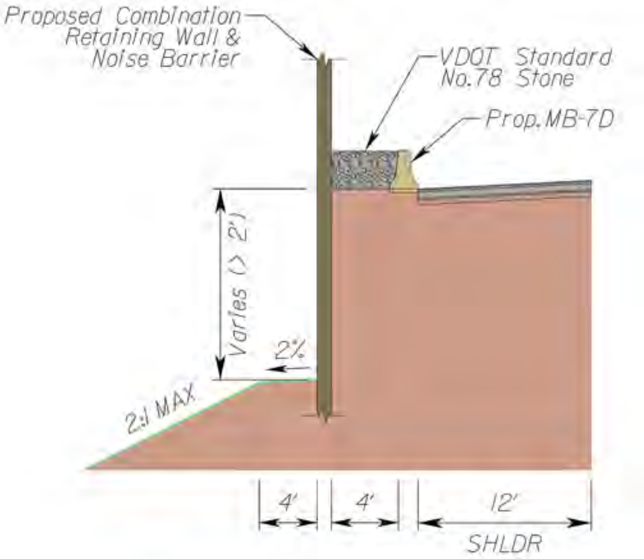


Figure 4.3.1.3 - Typical Combination Retaining Wall and Noise Barrier

(i) Lighting

Our Team will provide a continuous lighting system utilizing VDOT standard LP-1 and/or LP-2 poles adjacent to the outside shoulders of I-64 and the interchange ramps, and underbridge lighting for all I-64 overpasses. Light pole locations are coordinated with noise barriers, guardrail, and retaining wall locations and will be located so that proposed lights can be installed without impacting the existing lighting system. As required by the RFP, existing lights will either be maintained during construction, or temporary lighting will be provided until the proposed permanent lighting system is installed and operational.

(j) Guardrail/Barrier

Consistent with the RFP, our Team's roadway design incorporates the use of MB-12 or 13 barriers within the median. Where barrier is required along the outside shoulders, standard MB-7D and MB-7F is provided. Adjacent to noise barriers, standard MB-7D is used in accordance with the *VDOT Road Design Manual*. The remaining areas will be reviewed for use of the standard Midwest Guardrail System (MGS). Preliminary barrier and guardrail locations are identified in our Volume II – Design Concept.

(k) Locations of Mill and Overlay/Buildup of Existing Pavement

Overall pavement buildup is reduced by our Team's Concept to provide a spline grade for the vertical geometry. As required by the RFP, the median lane and shoulder slope will be adjusted within tangent sections such that all drainage runoff is redirected to the outside, requiring the cross-slope to be adjusted by asphalt buildup. In addition, the west end approach profile of the EB I-64 Bridge Over the Hampton River will be adjusted by asphalt buildups to coincide with the final bridge deck surfaces which is designed to provide the minimum vertical clearance over River Street.

(l) Tolling Infrastructure Locations

Devices associated with the permanent tolling and ITS system are shown in our Volume II – Design Concept, including the toll gantry location, DMS signs, generator site, CCTV cameras, microwave vehicle detectors, and roadway gates. Locations for additional miscellaneous elements and systems such as cabinets, junction boxes, the queue detection system, flashing warning lights for speed limit signs, and the Over Height Vehicle Detection (OHVD) system will be determined during final design. The fiber optic communications systems will connect the applicable devices to the communications network, and include separate cables for the tolling and ITS system. The routing of our communications backbone is coordinated with the other Project elements to facilitate constructability, achieve resilience and ease of long-term maintenance, and ensure compatibility with the Tolling/ITS systems by others at the Project termini.

The Team recognizes the criticality of avoiding outages of the existing ITS system during construction. Where anticipated to be in conflict, we will relocate the existing fiber as an early activity to reduce the risk of an accidental strike. We will permanently relocate the communications system to the WB bridge prior to work on the EB bridge over the Hampton River, avoiding the condition of having bridge construction on a structure with active communication lines.

(m) Other Key Project Features

River Street Park

Our Team's I-64 EB Bridge Over Hampton River proposed alignment shift results in several advantages to the City of Hampton's River Street Park. Two 4(f) parcels within the Park (041 and 042) will no longer require permanent fee simple acquisitions as compared to the RFP plans. Upon completion of construction, ***our Concept provides an additional 4,500 SF of open area*** on the south side of the bridge than is provided by the RFP concept. Additionally, VDOT's future maintenance footprint within the park will be reduced due to the decreased offset between the EB and WB overpasses.

4.3.2 Conceptual Structural Plans

In preparation of our structural design, our Team focused on the goals of improving safety, minimizing impacts to traffic, mitigating schedule risks, and reducing both initial and long-term maintenance costs. Several challenges and risks associated with construction of these structures factored into the development of our Concept including:

- Widening of Pier 9 of the I-64 WB Bridge Over Hampton River while avoiding impacts to the East Pembroke Avenue Bridge;
- Mitigating impacts to the existing Verizon submarine cable in the Hampton River;
- Avoiding the overhead transmission lines south of the I-64 EB bridges over the Hampton River and East Branch during demolition and construction;
- Conflict at the WB King Street Bridge between the existing WB Pier 1 footing and the proposed foundation; and
- Minimizing the impact to the traveling public.

Our Team considered the types of materials, methods, and functionality of a number of elements and incorporated them into our Concept to reduce the need for future inspection and maintenance and to provide VDOT full confidence in the Project's long-term asset performance and durability. Highlights of these efforts include:

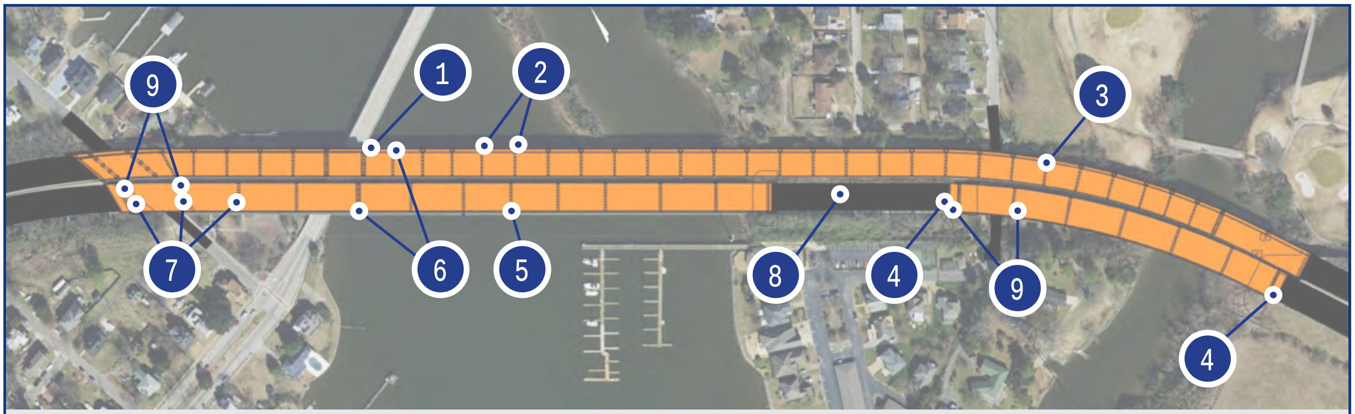
- Maximizing the use of continuous spans in the new I-64 EB bridges over Hampton River and East Branch to eliminate joints;
- Using low permeability concrete to improve long-term asset performance by limiting the depth of carbonation and slowing the ingress of detrimental deicing chemicals into the concrete;
- Providing corrosion resistant reinforcing (CRR) steel in all superstructure and substructure concrete structural elements in accordance with VDOT IIM-S&B-81.8;
- Maximizing the use of prestressed concrete beams for all new bridges and bridge widenings as allowed by the RFP, which eliminates the need to maintain a coating system;
- Providing laminated elastomeric bearing pads, which are a very low maintenance bearing type as compared to other bearing types;
- Using a deck slab drainage system to control the amount of water that collects on the bridge; and
- Providing prestressed concrete piles on the I-64 EB and WB bridges over Hampton River and East Branch that utilize CFRP strands. CFRP strands are a corrosion-free reinforcement.

Each of these will be incorporated into the design and construction of the structures, which combined with the repairs and deck overlays, will significantly reduce maintenance costs and increase the service life of both the new and existing bridges. Detailed descriptions of our design approach to each of the structures are provided below and in our Volume II - Design Concept.

Hampton River and East Branch Bridges

The EB and WB crossings of the Hampton River and East Branch posed the greatest design challenge that our Team faced in meeting the schedule goals, ensuring constructability, and achieving the maintenance of traffic requirements. From the beginning of the Technical Proposal phase, it was clear that these bridges were on the Project's critical path. Relying on the key principals of design-build, our Team implemented a fully integrated approach to address these challenges by involving the construction, permitting, utility, safety, ROW, and scheduling disciplines in the design process. This highly interactive approach investigated multiple design and sequence of work options before arriving on our Team's design concept solution for these crossings. Figure 4.3.2.1 further describes our unique design solutions. Key elements include:

- Adjusting the EB bridge alignment to the north to increase clearance to the overhead transmission lines during construction to enhance safety;
- Replacing the existing EB structures with two new bridges, verses the single bridge shown in the RFP, to decrease VDOT's long term maintenance, enhance constructability, and improve the schedule;
- Developing a sequence of work that completes improvements to the WB bridge first, followed by the complete replacement of the EB structures. This avoids safety and constructability concerns with the existing fracture-critical structure over the East Branch; and
- Early Works design packages that focus on completing elements of the WB bridge improvements concurrent with the permitting process to minimize schedule risk.



Unique Design Solutions for Proposed Bridge Layout

① Developed ATC #01 for a unique design solution to avoid impacts between the widened portion of Pier 9 on the I-64 WB Hampton River Bridge and the existing substructure on the East Pembroke Avenue Bridge over Hampton River.

② Designed an innovative "T" shaped pile bent to avoid conflicts with the existing outward battered piles on the I-64 WB Hampton River Bridge at 31 locations. This approach will ***eliminate up to 31 piles***.

③ Reduced the total area of the I-64 WB Hampton River Bridge by approximately 2,800 square feet by adjusting the sequence of construction, which ***reduces the deck overbuild by 1'***.

④ Eliminated two tooth expansion joints on the I-64 EB bridge by proposing two new bridges in lieu of a single bridge as shown in the RFP Conceptual Plans.

⑤ Developed a span arrangement for the I-64 EB Hampton River Bridge that increases the width of the span over the existing navigable channel.

⑥ Developed strategies for mitigating impacts to the existing Verizon submarine cable in the Hampton River.

⑦ Reduced the skew of the substructure units at the west end of the I-64 EB Bridge Over Hampton River by approximately 20° allowing for a semi-integral jointless abutment to be used.

⑧ ***Reduced the total bridge area by 28,600 SF, by*** replacing the two existing I-64 EB Bridges with two new bridges in lieu of one bridge, as shown in the RFP Conceptual Plans.

⑨ Placed new substructure units at River Street and South Boxwood Street to avoid the existing underground and overhead utilities.

Figure 4.3.2.1 - Unique Design Solutions for Proposed Bridge Layout

I-64 WB Bridge Over Hampton River

The improvements to the existing I-64 WB Bridge Over Hampton River include the widening of the existing structure, two bridge mounted noise barriers, and repairs to the existing deck, superstructure, and substructure. The existing bridge will be widened along the outside shoulder on the north side of the bridge to provide a clear roadway width of 60'. A significant enhancement of our Concept is that our sequence of construction reduces the widening by one foot over the width shown in the RFP Conceptual Plans. This sequence of construction still meets all minimum lane and shoulder widths required by the RFP and ***reduces the total area of the bridge by approximately 2,800 SF***. Our Team has also proposed several unique design solutions to avoid conflicts with existing piles and the substructure of the East Pembroke Avenue Bridge over Hampton River (Pembroke Avenue Bridge). The final configuration of the bridge is shown in Table 2.

Table 2 - Proposed Configuration for I-64 WB Bridge Over Hampton River

Roadway Section	Span Arrangement	Abutment Type	Pier Type
Curb-to-Curb Width: 60' ▪ 10' Outside Shoulder ▪ 2 – 12' GP Lanes ▪ 2 - 12' HOT Lanes ▪ 2' Inside Shoulder	Varies. See Volume II - Design Concept for Structural Plans.	Both existing abutments to be modified to use deck slab extensions with buried approach slabs.	▪ Widening of Piers 1, 2, 8, 9, 36 & 37 will consist of a single column on piles. ▪ Widening of all other piers/ bents will consist of pile bents.

Superstructure - I-64 WB Bridge Over Hampton River

The widening of this bridge will consist of adding two beams/girders to the existing cross section. Prestressed concrete AASHTO I-Beams will be used in Spans "a" through "aj" and continuous structural steel plate girder spans with a composite cast-in-place concrete deck will be used in Spans "ak" and "al". Structural steel in Spans "ak" and "al" will consist of ASTM A709 Grade 50W, weathering steel, and will be painted in accordance with the RFP requirements. The widened superstructure will include lighting conduit and light pole supports for the continuous roadway lighting system, bridge conduit system for ITS, and a dry water supply pipe for the bridge standpipe system. The widened superstructure will support two bridge mounted noise barriers with the posts being positively attached to both the parapet and deck extension.

The existing bridge will be retrofitted to eliminate a total of seven deck joints. The deck joints at each abutment will be eliminated by retrofitting the abutments to utilize VDOT's standard deck slab extension details with buried approach slabs. The deck joints at Piers 1, 2, 3, 34, and 35 will be eliminated by using VDOT's standard flexible link slab details. Since the existing superstructure has precast concrete deck panels, the typical limits of full depth deck reconstruction work at the abutments and piers will need to be adjusted to coincide with the joints in these panels. At pier locations where joints are permitted to remain, the existing joints will be entirely replaced with armored joints utilizing elastomeric expansion dams. In addition, all existing bearings and bearing components will be replaced in accordance with the RFP, including the high load multi-rotational bearings supporting the integral pier cap at Pier 37.

Substructure - I-64 WB Bridge Over Hampton River

Prestressed concrete piles with CFRP strands (VDOT Standard BPP-3) will be used for all piles in the widened substructure. The existing abutments will be retrofitted to eliminate the deck joints. The substructure elements will be analyzed and modified accordingly to account for any increases in forces that result from the new bearing configurations and closure of the deck joints. Piers 1, 2, 8, and 9 will be designed to closely match the aesthetics of the existing multi-column piers at these locations. The widening of Piers 36 and 37 will consist of a single column with rectangular pier cap. Pile bents will be used at all other pier/

bent locations. Our Team developed a unique configuration for the pile bents shown in Figure 4.3.2.2, to avoid conflicts with the existing outward battered piles and the Verizon submarine cable within the Hampton River. Our Concept consists of a "T" shaped pile bent supported by three prestressed concrete piles vs. the square shaped pile bent supported by four prestressed concrete piles that was shown in the RFP Conceptual Plans.

Our Team's ATC #01 resolves the conflict between the widened portion of Pier 9 and the existing substructure of the Pembroke Avenue Bridge. The solution involves the construction of a skewed pile bent over the eastern end of the existing bent for the Pembroke Avenue Bridge as shown in Figure 4.3.2.3. The piles will be installed on either side of the existing pile bent to avoid interference with the existing piles. The new pile bent will support a single circular column with a rectangular pier cap, which will closely match the aesthetics of the existing multi-column pier. Our design solution will permit a straight deck joint to be constructed, minimizing potential installation and maintenance concerns associated with a kinked joint. It also allows the beam/span lengths in Spans "i" and "j" to match the existing beam/span lengths, minimizing concerns with differential deflections between the existing and widened portions of the bridge.

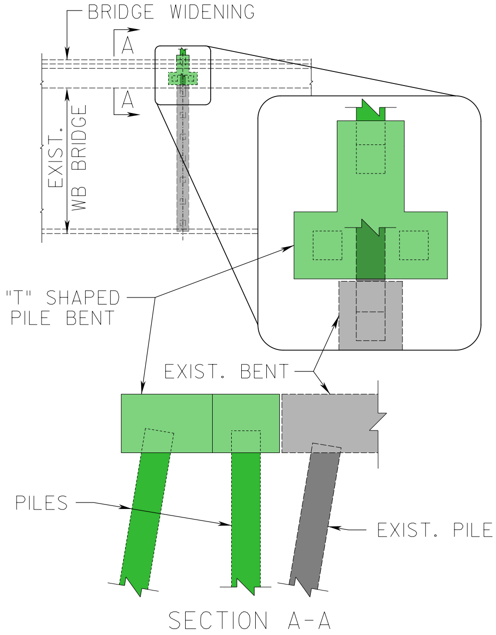


Figure 4.3.2.2 - Unique "T" shaped pile bent configuration to avoid existing outward battered piles

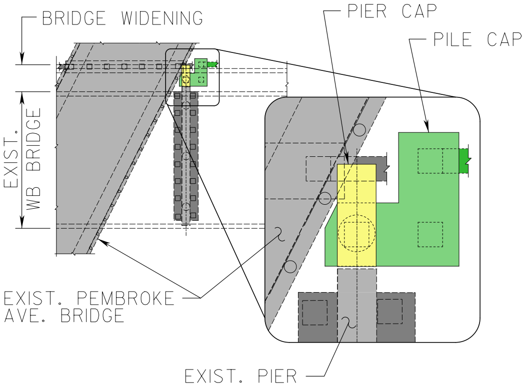


Figure 4.3.2.3 - ATC #01 at Pier 9 and the existing substructure of the Pembroke Avenue Bridge

I-64 EB Bridge Over Hampton River

Our design approach for the I-64 EB Bridge over the Hampton River evaluated multiple span arrangements and alignment alternatives that considered:

- The locations of existing bridge elements that are to remain;
- Proximity of the Dominion Energy 115 kV overhead transmission line;
- The location of the Verizon submarine cable within the Hampton River;
- Underground utilities at River Street;
- Constructability of the new bridge over the water with the use of barges or temporary work trestles;
- Maximizing the open space that could be utilized for River Street Park;
- Maximizing the span width over of the navigation channel;
- Maintenance of traffic;
- Schedule;
- Construction cost; and
- Long-term inspection and maintenance requirements for VDOT.

Our Concept addresses these challenges through two major enhancements as compared to the RFP:

1) Shifting the alignment to the north; and
2) Separating the single bridge into two bridges.

The final configuration of the bridge is shown in Table 3.

Table 3 - Proposed Configuration for I-64 EB Bridge Over Hampton River

Roadway Section	Span Arrangement	Abutment Type	Pier Type
Curb-to-Curb Width: 63’ ▪ 10’ Outside Shoulder ▪ 2 - 12’ GP Lanes ▪ 3’ Buffer ▪ 2 - 12’ HOT Lanes ▪ 2’ Inside Shoulder	▪ Unit 1: 140’ – 131’ – 131’ – 140’ ▪ Unit 2: 119’ – 119’ – 107’ – 107’ – 107’ 125’ – 125’ – 125’	▪ Abutment A: Semi-integral abutment supported on piles. ▪ Abutment B: Virginia Abutment supported on piles.	Eleven pile bents (one of which supports a Virginia Pier Cap).

Superstructure - I-64 EB Bridge Over Hampton River

The new bridge will consist of 12 spans with a total length of 1,476’ that includes two bridge “units” that are separated by a tooth expansion joint at Pier #4. Unit 1 has a total length of 542’ measured from end of slab at Abutment A to the center of Bent 4 and utilizes a semi-integral jointless abutment at Abutment A and 69” deep prestressed concrete bulb-T beams made continuous for live load. Unit 2 has a total length of 934’ measured from the center of Bent 4 to the face of backwall at Abutment B and utilizes 61” deep bulb-T beams made continuous for live load. Our Team intends to amend the approved Design Waiver for the use of Virginia Pier Caps to ***reduce the number of requested joints from two to one*** based on the total bridge length and span arrangement.

The bridge is hydraulically equivalent to the existing bridge with a low chord elevation greater than 2 feet above the future Mean High Tide (MHT) based on 4 feet of Sea Level Rise (SLR) as required by Chapter 33 “Considerations of Climate Change and Coastal Storms” of the *VDOT Manual of the Structure and Bridge Division*. The low chord of the bridge is not lower than the existing bridge at any location along the alignment over the Hampton River, including the existing channel located in Span “f”. The bridge will meet all minimum vertical clearance requirements over River Street and East Pembroke Avenue.

The bridge will carry one bridge mounted noise barrier wall along its full length with the posts being positively attached to both the parapet and the deck extension in accordance with Chapter 25 of the *VDOT Manual of the Structure and Bridge Division*. The bridge will include lighting conduit and light pole supports for the continuous roadway lighting system, conduits for ITS, and a dry water supply pipe for the bridge standpipe system. The bridge will be constructed in a single phase thereby eliminating longitudinal construction joints in the bridge deck, which will reduce inspection and maintenance needs for VDOT.

Substructure - I-64 EB Bridge Over Hampton River

The bridge will be supported by eleven pile bents, one of which supports a Virginia Pier Cap, a semi-integral abutment at Abutment A, and a Virginia Abutment at Abutment B. Prestressed concrete piles with CFRP strands (VDOT Standard BPP-3) will be used for all pile bents and abutment piling. The substructure units have been located to avoid the existing foundations. The substructure units for the bridge that are located in water depths of 2’ or greater and with a water elevation of 4.95’ will be designed for vessel collision of an empty hopper barge in accordance with the RFP.

I-64 EB Bridge Over East Branch

Similar to the I-64 EB Bridge over Hampton River, our Team’s design approach for the I-64 EB Bridge over East Branch addresses elimination of deck expansion joints, minimizing impacts to utilities, and avoiding the existing foundations. Our alignment shifts the bridge slightly towards the existing I-64 WB Bridge to tie-in to the tangent alignment of the I-64 EB Bridge over Hampton River. The bridge is almost entirely located within a horizontal curve with a radius of 1,700’. The final configuration of the bridges is shown in Table 4.

Table 4 - Proposed Configuration for I-64 EB Bridge Over East Branch

Roadway Section	Span Arrangement	Abutment Type	Pier Type
Curb-to-Curb Width: 63' ▪ 10' Outside Shoulder ▪ 2 - 12' GP Lanes ▪ 3' Buffer ▪ 2 - 12' HOT Lanes ▪ 2' Inside Shoulder	125' – 127' – 127' – 127' – 127' – 116'-10"'	Semi-integral abutments supported on piles.	Pile bents.

Superstructure - I-64 EB Bridge Over East Branch

The bridge will consist of 6 spans with a total length of 753'-10" measured from end of slab to end of slab. The bridge will be constructed in a single phase thereby eliminating the need for longitudinal construction joints in the bridge deck. The superstructure for the bridge will conform to VDOT's jointless philosophy by using semi-integral abutments and 61" deep prestressed concrete bulb-T beams made continuous for live load. Semi-integral abutments were determined to be the most appropriate abutment type to provide a jointless bridge based on the abutment type selection algorithm in the *VDOT Manual of the Structure and Bridge Division*.

The bridge will carry one bridge mounted noise barrier with posts positively attached to both the parapet and the deck extension in accordance with Chapter 25 of the *VDOT Manual of the Structure and Bridge Division*. The bridge will include lighting conduit and light pole supports for the continuous roadway lighting system.

The bridge is hydraulically equivalent to the existing bridge with a low chord elevation greater than 2 feet above the future Mean High Tide (MHT) based on 4 feet of Sea Level Rise (SLR) as required by Chapter 33 "Considerations of Climate Change and Coastal Storms" of the *VDOT Manual of the Structure and Bridge Division*. The low chord of the new bridge is also not lower than the existing bridge at any location along the alignment over East Branch and will meet all minimum vertical clearance requirements over South Boxwood Street.

Substructure - I-64 EB Bridge Over East Branch

The bridge will be supported by five pile bents and semi-integral abutments. Abutment B will be located forward of the existing abutment, thus reducing the overall length and area of the structure. Prestressed concrete piles with CFRP strands (VDOT Standard BPP-3) will be used for all pile bents and abutment piling. At Abutment B, a U-back wingwall will be provided along the north side of the bridge that will extend to the face of backwall of the eastern abutment on the I-64 WB Bridge over Hampton River. No additional fill is proposed to be placed on the existing foundations for the I-64 WB Bridge over Hampton River. No MSE walls are proposed for this bridge since the bridge is entirely located within a flood plain and/or tidal area.

The substructure units that are located within East Branch in water depths of 2' or greater at a water elevation of 4.95' (existing MHT elevation of 0.95 feet plus 4 feet of SLR) will be designed for vessel collision of an empty hopper barge in accordance with the RFP. The substructure units will be designed with and without considering 4' of SLR in accordance with Chapter 33 "Considerations of Climate Change and Coastal Storms" of the *VDOT Manual of the Structure and Bridge Division*.

I-64 EB/WB Bridge Over Rip Rap Road

The existing bridge widths are able to accommodate the proposed roadway section, therefore the scope of work is limited to repair of the piers and abutments, repair and overlay the existing decks, replacement of the existing bearings with new steel reinforced elastomeric bearings, and replacement of the joints at the piers with link slabs. In addition, the joints at the abutments will be eliminated by modifying the slab to a deck extension detail with buried approach slabs.

The original construction of these bridges included simple span prestressed concrete AASHTO girders; however, the outside widenings utilized simple span prestressed concrete box beams. This will require that the joint elimination details at both the abutments and the piers be slightly different for the original portion and the widened portion of each deck.

I-64 EB/WB Bridges Over King Street

The existing structures consist of simple span prestressed concrete girders, with joints at each pier and abutment. The outside widening of each bridge will consist of either AASHTO or VDOT Bulb-T prestressed concrete girders. The WB bridge will also support a noise barrier behind the outside parapet. In addition to the widening, the scope includes repair of the piers and abutments, repair and overlay of the existing decks, replacement of the existing bearings with new steel reinforced elastomeric bearings, replacement of the joints at the piers with link slabs, and elimination of joints at the abutments by modifying the slab to a deck extension detail with buried approach slabs. The final configuration of the bridges is shown in Table 5.

Table 5 - Proposed Configuration for I-64 EB/WB Bridges Over King Street

Final Roadway Section	Span Arrangement	Abutment Type	Pier Type
WB Curb-to-Curb Width: 60'-1" ▪ 10' Outside Shoulder ▪ 2 - 12' GP Lanes ▪ 1 - 12' HOT Lane ▪ 14'-1" Inside Shoulder	**WB** 1 Span at 45'-6 7/8" 1 Span at 75'-0" 1 Span at 45'-6 7/8"	Existing abutments to be modified to use deck slab extensions with buried approach slabs. Abutment widenings will utilize the same abutment type.	Widenings will consist of a single column on piles.
EB Curb-to-Curb Width: 63'-0" ▪ 10' Outside Shoulder ▪ 2 - 12' GP Lanes ▪ 3'- 0" Buffer ▪ 2 - 12' HOT Lanes ▪ 2' Inside Shoulder	**EB** 1 Span at 45'-6 7/8" 1 Span at 75'-0" 1 Span at 45'-6 7/8"		

Deck Overlays

The method and extent of the deck milling/demolition and the materials to be utilized will be in accordance with the RFP. The existing bridges were previously widened utilizing prestressed concrete deck panels. Since the deck panels have transverse prestressing strands, we will completely remove the last panel adjacent to each joint in order to construct the link slab at the piers and the deck extensions at each abutment. This will avoid the potential of cutting or damaging the strands and compromising the strength of the existing deck panels.

WB Pier 1

The existing WB Pier 1 foundation extends below the location of the new column as shown in Figure 4.3.2.4, making it necessary to support the new column on the existing footing. To avoid additional loading on the existing foundation of this pier, we will utilize a single column to support the new girders and increase the capacity of the existing foundation by either installing new piles under an extended footing or strengthening by

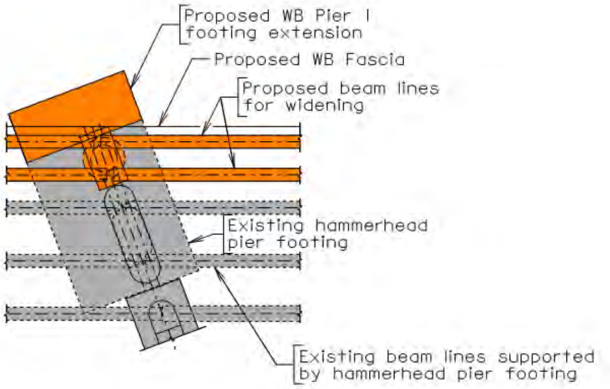


Figure 4.3.2.4 - WB Pier 1 Plan

adding micropiles. The other three piers do not have this conflict. However, they do have battered piles extending perpendicular to the footing on the outside which will be avoided by our design.

I-64 EB/WB Bridges Over Settlers Landing Road

The original construction of these bridges consisted of four-span continuous steel rolled beams, with joints at each abutment. The EB bridge width is able to accommodate the proposed roadway section and will not be widened. The WB widening will consist of adding a single continuous steel girder to the bridge cross section while maintaining the existing minimum vertical clearance of 15’-0”. In addition to the WB widening, this Project will repair the piers and abutments, repair and overlay the existing decks, replace the existing bearings with new steel reinforced elastomeric bearings, replace the joints at the piers with link slabs, and eliminate joints at the abutments by modifying the slab to a deck extension detail with buried approach slabs for both bridges. The foundations for the new pier columns and abutment widenings will utilize drilled shafts or micropiles. The final configuration of the bridges is shown in Table 6.

Table 6 - Proposed Configuration for I-64 EB/WB Bridges Over Settlers Landing Road

Final Roadway Section	Span Arrangement	Abutment Type	Pier Type
WB Curb-to-Curb Width: 60’-9” 10’ Outside Shoulder 2 - 12’ GP Lanes 2 - 12’ HOT Lanes 2’- 9” Inside Shoulder	**WB** 1 Span at 55’-0” 2 Spans at 69’-4” 1 Span at 55’-0”	Both WB and EB existing abutments to be modified to use deck slab extensions with buried approach slabs. WB Abutment widening will utilize the same abutment type.	Both WB and EB existing multi-column piers on piles to be repaired and re-used. WB widening will utilize a single column supported on drilled shafts or micropiles
EB Curb-to-Curb Width: 53’-11 1/2” 2’- 11 ½” Outside Shoulder 2 - 12’ GP Lanes 3’- 0 Buffer 2 - 11’ HOT Lanes 2’ Inside Shoulder	**EB** 1 Span at 55’-0” 2 Spans at 69’-4” 1 Span at 55’-0”		

Owens Street Pedestrian Underpass

A detailed inspection of the existing structure will be performed to map the locations and extent of each type of repair. The proposed repair plan will be submitted to VDOT for approval prior to starting the work. This will become the basis for the repair work to be performed, and details of each type of repair will be included in the final plans.

Retaining Walls

The layout of each retaining wall is a key element to our approach to minimizing impacts to ROW and existing drainage. We conducted weekly TWGs meetings to specifically review each location and coordinate between the noise barriers and structures. Based on this thorough review and adjustments to our horizontal and vertical geometry, as noted in Section 4.3.1, our Team will ***eliminate approximately 2,700 linear feet of retaining wall, representing a 30% reduction in overall length***. Our Team is proposing to shift the noise barrier / retaining combination walls to the standard offset of 4 feet behind standard MB-7D median barrier in most locations. This reduces coordination efforts and transitions between different wall types allowing construction to progress more efficiently.

Another area of focus is the existing gravity retaining wall located approximately at WB I-64 Station 1774+75 and adjacent to the Hampton National Cemetery Phoebus Addition. Our design will retain the existing gravity wall and utilize a combination noise barrier/retaining wall and special design parapet with moment slab. This will be designed and constructed to resist the new loading and not impact the existing retaining wall.

Major Drainage Structures

The proposed I-64 bridges over the Hampton River and East Branch represent major drainage structures since flow is conveyed beneath them. We recognize this area is part of a FEMA case number 12-03-0379S - Coastal Analysis which provides the stillwater and wave calculations. Based on this and the FEMA mapped flood zone, our Team has estimated the scour for both the widened WB bridge and the two new EB bridges. Based on our Team's improved substructure layout, the EB bridges will reduce the number of piers/bents in the waterway and increase the hydraulic opening. Final H&HA and scour analysis will be completed by our Team during final design to confirm the long-term stability and functionality of the bridges, including 1-D models as required by the RFP.

Another major drainage structure is the crossing of Brights Creek, located at approximately I-64 Station 705+90 and conveyed through triple 48" culverts. No extension or modification of this structure is proposed, but preliminary analysis indicates that the 100-year flow exceeds 500 cfs. We will complete a formal analysis of this culvert should any changes in hydrology be introduced as a result of our proposed design. Due to the water level through the culverts, a Level I underwater inspection of the entirety of all three barrels of this culvert and Level II inspection of the observed areas of deterioration will be performed. This inspection will include those portions of the culverts that are above the water surface. A detailed map of the locations and extent of each type of repair required will be prepared and submitted to VDOT for approval prior to starting the work.

4.4 - Project Approach

4.4 Project Approach

4.4.1 Environmental Management Approach

Our Team takes a robust, proactive approach to environmental management both during design and construction. Close coordination between design and construction staff is central to our approach, and coordination with utility relocation, right-of-way (ROW), and safety staff ensure the full scope of the Project and current conditions are accounted for throughout each phase. As VDOT observed throughout the I-64 Capacity Improvements Segment I and III Projects, our Team will exceed expectations to address environmental challenges, satisfy public concerns, and ensure the Project remains on-schedule. We will utilize this same approach and experience to provide outstanding environmental stewardship.

Approach to Environmental Risk Management During Design

Environmental challenges on highly constrained large-scale transportation projects require in-depth upfront planning with the entire Project Team to reduce and address risk. Our Team initiates risk management and avoidance efforts during the design phase, continuing to refine the design developed during the procurement phase, to ensure all elements, inclusive of utility relocations, account for environmental commitments and constraints. To integrate environmental concerns into the overall plan and minimize the risk of unforeseen impacts and schedule delays, our Team develops a constraints file, in MicroStation format, which can be referenced into design files. This file assists the Team in designing around environmental constraints, as each engineer is able to visualize locations and limits of constraints and resources which need to be avoided. Specific resources which may be of concern and which will require coordination, minimization and avoidance on this Project include:

- Cultural resources including the Hampton National Cemetery, Hampton Institute Historic District, Pasture Point Historic District, the Emancipation Oak, and Loblolly Pines;
- Section 4(f) resources including River Street Park and Woodlands Golf Course;
- Threatened & Endangered species including the Northern Long Eared Bat and sturgeon;
- Natural resources including the Pembroke Avenue Tidal Wetland Mitigation site and Virginia Marine Resources (VMRC) oyster grounds;
- Hazardous material sites including those where Phase I and Phase II investigations were previously completed by VDOT; and
- The Hampton River which will require close coordination and permitting through the U.S. Coast Guard (USCG).

To achieve full compliance with environmental commitments, considerations, the NEPA document, and permit conditions, our Team will prepare and execute a comprehensive Environmental Management Plan (EMP). The objective of the EMP is to track Project progress, ensure compliance with environmental commitments, and provide the following information to VDOT:

- Clear identification of responsible parties including qualifications and a description of the hierarchy of communication;
- Confirmation that permit authorizations and conditions are incorporated into the construction plans and adhered to during construction;
- Documentation that environmental commitments are monitored during design and construction;
- Evaluation of site conditions for additional avoidance and minimization opportunities; and
- Supporting documentation to verify compliance with all environmental commitments and permits on a semi-annual basis, or as requested.

Identification of Environmental Key Staff

We recognized the importance of environmental staff in development of our Team's organization structure and identified both the Environmental Permitting Monitoring Manager (EPMM) and Environmental Compliance Manager (ECM) as Value Added in our SOQ. The importance of these positions was validated by the RFP with the additional requirement to identify an ECM as a Key Personnel on the design-build Team. The engagement of these staff members will ensure coordination between design and construction disciplines, and implementation of commitments and requirements during construction.

Environmental Management Plan

Development and use of the EMP will reduce risks and address compliance through tracking of environmental constraints, previous environmental commitments, permit conditions, and stakeholder communications. The EMP will also detail key milestones and timelines for the submittal of reports, permits, and monitoring documentation. Our Team will work directly with VDOT to provide documentation semi-annually, utilizing the EMP as a tracking mechanism to ensure the commitments of the NEPA documentation and associated state and federal permits are being met.

Environmental Permitting

Weekly coordination meetings with design and construction personnel will facilitate technical input and recommendations so all environmental considerations are recognized and understood by each discipline. Anticipated permit requirements, constraints and environmental commitments are prioritized to promote avoidance and minimization efforts while addressing constructability. This active communication eliminates rework during later stages of design, and minimizes the potential for future permit modifications. Obtaining timely permits is critical to maintaining schedules for final design, utility relocations, right-of-way and easement acquisitions, and construction.

Once a draft permit application and impact limits have been vetted by our Team, a pre-application meeting will be held with the Virginia Department of Environmental Quality (DEQ), the U.S. Army Corps of Engineers (USACE),VMRC, the USCG, and other appropriate regulatory and third party agencies. Since Time of Year Restrictions (TOYR) can impact the Project schedule, representatives from the Department of Wildlife Resources (DWR) and the National Oceanic and Atmospheric Administration (NOAA) will be invited to participate. This approach expedites the permitting process by providing an opportunity for each agency to provide comments and ask questions on the information presented as well as provide recommendations prior to the formal permit application submission. The Joint Permit Application (JPA) will be submitted when plans are approximately 60% complete and utility relocation limits have been identified to ensure all potential impacts have been accounted for.

In addition to the JPA process outlined above, our Team is familiar with and will follow the USGC permit application process, including submission timelines, and understanding that the permit cannot be submitted until bridge plans are approximately 90% complete. To maintain the schedule for USCG permit approval, we will ensure appropriate construction details, information, and specifications regarding the disposition of the existing Aids to Navigation, channel clearance requirements, and Notice to Mariners submittal are provided to the USCG at the appropriate times.

VA Stormwater Management Program Permitting/Erosion and Sediment Control Design

Permitting agencies and localities, including the City of Hampton, pay close attention to Erosion and Sediment Controls (ESC) and limiting offsite impacts associated with transportation improvement projects. The VSMP falls under the Virginia Pollution Discharge Elimination System (VPDES) and requirements will be addressed through the development and approval of drainage, stormwater management, and ESC designs. We will provide a comprehensive Stormwater Pollution Prevention Plan (SWPPP), including a Spill Prevention, Control, and Countermeasure Plan, to ensure compliance with VSMP requirements. These documents will be kept on-site and updated throughout construction. The primary goals of our Team are to ensure that all possible avoidance and minimization efforts are implemented, there are no adverse impacts to environmental and natural resources, and an accurate schedule is developed.

Schedule Integration

Obtaining environmental permits and environmental approvals in a timely manner is always a schedule priority. In addition to our efforts to minimize and mitigate the risk of delays due to environmental approvals, we have integrated key environmental permits, environmental Hold Points, predecessor activities, and approvals into the Proposal Schedule, including the following key activities:

- ***Water Quality Permits (DEQ, USACE, VMRC)*** – The permit application package will be submitted concurrently with the 60% roadway plans and provides a nine-month issuance period for the agencies. The approved permits are identified as a Hold Point and are required prior to beginning construction in jurisdictional areas.

- ***USGC*** – In addition to the Notice to Mariners for the geotechnical borings, the bridge application will be submitted when bridge plans are approximately 90% complete to begin coordination efforts, answer questions and expedite final approvals. This submission will also include the Aids to Navigation (ATON) submittals addressing the final disposition of the channel markings as needed.

- ***Phase II Environmental Site Assessments (ESA)*** - ESA for the 26 required properties are integrated into the right-of-way acquisition activities and identified as a Hold Point to ensure the ESA's are completed prior to the ROW acquisition process.

- ***VSMP Permit*** - The VSMP permit application, including LD-445 forms, will be included with the 60% roadway plan submission and provides a three-month issuance period for the agencies. The Approved VSMP Permit is identified as a Hold Point and is required to begin construction.

The timeframes necessary to obtain the required permits and approvals are summarized in Table 7 and shown in Section 4.6.

Table 7 - Anticipated Major Permits/Approvals and Timelines

Agency	Permit Type/Approval	Anticipated Timeframe
Early Works Permits/Approvals – Geotechnical Investigations & Bridge Rehabilitation		
Property Access Approvals	Access Letters	30 days
VMRC	Subaqueous Bed Permit or Waiver	3 months
USACE	NWP # 6 (Geotech), NWP #3 (Rehabilitation)	3 months
VDEQ	401 Certification/ VWP permit	3 months
USCG	Notice to Mariners (as needed)	1 month
VDOT	Environmental Management Plan	2 months
VDHR	Section 106 Programmatic Agreement Reviews	1 month
USFWS/NOAA	Section 7 Concurrence	2 months
Construction Permits		
USACE	Nationwide #23, General, or Individual Permit	3-9 months
VDEQ	VWP Permit & Coastal Zone Management Act Determination	6-9 months

Agency	Permit Type/Approval	Anticipated Timeframe
VMRC	Subaqueous Bed Permit	4-6 months
USCG	Final Bridge Permit/Aid to Navigation/Notice to Mariners	12 months/6 months/1 month
VDOT/VDEQ	VSMP/LD 445 & SWPPP	3 months
VDHR	Section 106 Programmatic Agreement Reviews	1 month
USFWS/NOAA	Section 7 Concurrence	2 months
FHWA	Section 4(f) commitment Coordination	1 month
Hampton City	Park Access Approvals/ Special Use permit	2 months

Environmental Risk Management During Construction

Our environmental risk management approach begins with our design and environmental teams working together with construction to make sure the Project is constructible within the auspices of the constraints and schedule provided. Environmental reviews and compliance during construction are vital to ensure adherence to all permit and NEPA conditions and avoid unintended impacts. Our approach is designed to engage regulatory agencies and use previous experience to ensure environmental compliance is consistently maintained.

Utilizing the Environmental Management Plan

The EMP provides the necessary guidance to ensure environmental compliance and is a risk management tool. Our Team will utilize the EMP to verify Project commitments, identify permits applicable to the Project, and describe the impacts and encroachment limits. Environmentally sensitive areas will receive additional focus. Once the Project moves to construction, the ECM is responsible for monitoring construction activities that involve land disturbance and ensures that the Team implements the necessary procedures outlined in the EMP. The EPMM assists the ECM when construction modifications are identified to ensure potential modifications do not impact NEPA, permits, or other commitments and constraints. The EPMM also coordinates design reviews with the design team, ensures continued avoidance during design modifications, and communicates concerns or the need for modifications or revisions to the ECM, construction team, and VDOT.

Conducting Pre-Construction Environmental Sensitivity Training & Coordination

Prior to any construction activities, environmental sensitivity training will be held to educate all parties on the allowable limits of work, constraints, and commitments. Sensitive environmental resources and compliance requirements identified in the NEPA document and permits will be highlighted. Prior to work beginning in or adjacent to sensitive areas, the Field Supervisor will provide reminders of constraints and commitments to field personnel and will coordinate activities with the ECM so that appropriate monitoring can be initiated.

Our Environmental Team will ensure wetlands and waters are properly flagged to ensure limits are easily identifiable by construction personnel as depicted in Figure 4.4.1.1. Wetlands and streams will be protected by silt fence and orange safety fence to avoid impacts to non-permitted areas. Where possible, buffer zones will be incorporated between the perimeter controls and the orange fencing identifying the impact area as an additional safeguard. Permit impact plates approved during the permit application process will be shared with construction personnel to ensure avoidance of non-permitted areas.

Figure 4.4.1.1 - Installation of safety fence to ensure avoidance of impacts to non-permitted areas, protected properties, and commitment areas

Installation, Maintenance and Inspection of Erosion and Sediment Controls

We will prioritize the installation, maintenance, and inspection of ESC measures daily. Led by our ECM, the Team has experience and knowledge of the specific standards and specifications for all ESC measures. Upon mobilizing, issuance of the Construction General Permit (CGP), and Release for Construction (RFC) Plans, installation of ESC measures will take place before any land disturbing activities. While it is common to dedicate crews to the installation and maintenance of ESC measures, all trade crews participate and review these critical activities daily, valuing environmental compliance equally with safe work practices.

Compliance Inspections

ESC Task Force members will perform detailed field inspections twice per week to identify deficiencies in ESC measures and to highlight areas where additional controls may be necessary or recommended. These inspections are documented on Form C-107 and will be issued to field staff and key personnel the same day as the inspection, so that each grade crew will have copies of the inspection report in hand on the morning following the inspection. When inspectors see critical items during the inspection that require immediate attention, field supervisors are contacted and requested to direct resources to the issue. In addition to the C-107 inspections, inspectors will review construction activities continuously and will check outfall locations and non-impact areas after rain events to ensure that the ESC measures are functioning properly.

We fully expect the Project to benefit from inspections performed by VDOT Environmental Compliance Inspection (ECI) and NPDES staff, and our Team's ECM, or his designee, will accompany the ECI and NPDES inspectors on all visits. ESC Task Force members and construction staff will attend a debrief following the inspection to ensure that all action items and concerns are recorded and known the day of the inspection. The action items will be added to the most recent C-107 inspection form, if not already identified from that process, to ensure items are addressed promptly while the reports from the ECI and NPDES visits are finalized. The same process will be followed for monthly inspections performed by DEQ's Tidewater Regional Office.

VWP Compliance Reporting

To assure permit compliance, our Team will complete the monthly VWP Permit Inspection Checklist and Biannual Construction Status Update Forms to document construction progress and timing of impacts for all permitted jurisdictional areas. As needed, the EPMM and ECM have the ability to complete additional site visits to ensure permit compliance throughout construction. All necessary reports will be submitted to each regulatory agency, VDOT, and construction personnel.

In the event that an undesired sediment release or non-permitted impact occurs during construction due to excessive rain events or ESC control failure, we will contact the VDOT Project Manager and regulatory agencies to provide timely reporting within the 24-hour time frame as required per the VWP Permits. Contact with these agencies will be completed efficiently and effectively, identifying and implementing an appropriate corrective action plan in the field.

4.4.2 Utilities

Approach To Utility Coordination, Adjustments, and Relocations

Our Team views the utility scope as a critical, indispensable part of any successful project. Utility conflicts can affect every discipline, including design, permitting, ROW, construction, and schedule. We have dedicated in-house resources to focus solely on managing this scope. Led by our Lead Utility Coordination Manager, our Team has extensive design-build experience, including in the Hampton Roads District. These projects have required coordination with many of the same utility companies present on this Project including Dominion Energy, Verizon, Cox, Newport News Waterworks, Hampton Roads Sanitation

District, and Virginia Natural Gas. The focus, experience and close working relationships developed with these utility owners have benefited and directly affected our Design Concept by enabling solutions that minimize risk and maintain schedule certainty.

Our Team also understands the critical nature of any impacts to the Department-owned ITS and electrical facilities and the associated impacts to the traveling public. We will fully implement VDOT's NOI process including field verification of VDOT's assets, and development and maintenance of an asset tracking system throughout the life of the contract. The standard notification process consisting of the initial notification, second notification, confirming/final notifications, work progression notices, and notification of work completed will be strictly adhered to.

During the preparation of our Technical Proposal, early coordination began by meeting each utility owner on multiple occasions to understand their facilities, review the design and schedule, and address conflicts and risks. Upon receipt of a Notice of Award, these efforts will continue in earnest during the final development of the design, right-of-way, permitting, scheduling, and construction sequence of work. Close coordination and early involvement will enable utility companies to coordinate their crew availability, maximize their production, recognize areas of concern, and integrate solutions into our design and schedule. Figure 4.4.2.1 outlines the steps and activities we will perform to continue coordination with each utility owner once the Project is underway. Our approach to successful management of the utility scope of work will encompass the following goals:


1
- Obtain utility designations
- Review test pit information
- Identify locations of existing easements

2
- Provide feedback to design, permitting and right-of-way managers on potential conflicts
- Develop plans for avoidance of utilities or minimization of utility relocation

3
- Review plans for avoidance or relocations with utility companies
- Prepare UT-9 forms

4
- Hold UFI meeting with utility owners
- Establish utility relocation plan, budget and schedule
- Incorporate relocations into the Project Schedule

5
- Verify each private utility's prior rights
- Coordiante with ROW managers on easements that might be needed to accommodate the relocations
- Finalize pro-rata share budgets and relocation schedules

6
- Meet with public utilities to finalize avoidance and/or relocation plans
- Incorporate plans into design documents and submit for approval
- Obtain necessary right-of-way (easements) for the utility relocations

7
- Incorporate approved utility relocation plans into the construction schedule
- Identify utility relocation activities which fall on the critical path
- Evaluate resources needed to accomplish critical relocations

8
- Proceed with utility relocations
- Take immediate action on unforseen utility conflicts
- Maintain team approach to achieve quick resolution on unforeseen conditions and other field issues

Figure 4.4.2.1 - Approach to Utility Coordination

- Accurate and early identification of existing utilities;
- Integration with design to determine conflicts;
- Early coordination with utility owners to develop conflict resolution strategies;
- Precise identification of necessary easements;
- Thorough integration with the Project Schedule and sequence of work; and
- Constant monitoring and tracking of the relocation progress.

Our priority throughout design and construction will be to avoid utility impacts altogether. If conflicts cannot be avoided by design, we will work diligently with each utility owner to minimize relocations through a combination of design and protection measures. We will relocate utilities to eliminate conflicts with new construction as a last resort.

An example of our early avoidance efforts relates to the existing Verizon submarine conduit system that parallels the Pembroke Avenue Bridge on the south side below the bed of the Hampton River. As shown in the RFP As-Built Verizon Supplemental Information Plans, the conduit system has the potential to conflict with the I-64 WB bridge widening of Bent 9. After consulting with Verizon and their subcontractor, it appears that the system can be adjusted in place, thereby avoiding a complete relocation. Alternatively, we can relocate the system to avoid the new foundation. Our Lead Utility Coordination Manager reviewed all design and relocation alternatives with Verizon, and it is our opinion that field adjustment to the system is the most economical, shortest duration, and best value solution.

Utility Conflicts and Solutions

Table 8 is a summary of the known utility conflicts and our relocation and/or mitigation strategies for resolving them. The Plan ID corresponds to our Volume II - Design Concept.

Table 8 - Utilities Conflicts and Mitigation Strategies

Plan ID	Utility/Owner Description	Approximate Location	Potential Conflict	Relocation Plan/ Mitigation Strategy
UNDERGROUND ELECTRIC/COMMUNICATION				
1	Dominion Energy Underground Electric	Rip Rap Road at I-64 WB Station 1681+80 and I-64 EB Station 680+80	WB/EB B-659 Pier 1 Foundations	Relocate In-Kind
2	Dominion Energy Submarine Electric	I-64 WB Station 1725+00	B-674 Bent 7 Foundation	Adjust In-Place or Relocate In-Kind
3	Dominion Energy Underground Electric	South Boxwood at I-64 WB Station 1741+65	B-674 Bent 29 Foundation	Adjust In-Place
4	Dominion Energy 3-Phase Underground Electric	I-64 WB Station 1745+00 and I-64 EB Station 723+75	B-674 Widening and B-673 Replacement	Adjust In-Place
5	Dominion Energy Underground Electric	South Boxwood at I-64 EB Station 741+30	B-673 Pier 1 Foundation	Adjust In-Place
6	Verizon Conduit System	I-64 WB Station 1663+50	Noise Barrier 'ABCD1'	Design Foundations to Avoid
7	Verizon Fiber Optic Conduit System	I-64 WB Station 1716+48 and I-64 EB Station 716+24	Noise Barriers 'ABCD2' and 'DJKL'	Design Foundations to Avoid
8	Verizon Submarine Conduit System	I-64 WB Station 1727+00	B-674 Bent 9 Foundation	Adjust In-Place or Relocate In-Kind
9	Verizon Single Cable	South Boxwood at I-64 WB Station 1741+75	B-674 Bent 29 Foundation	Adjust In-Place
10	Verizon Single Cable	South Boxwood at I-64 EB Station 741+35	B-673 Pier 1 Foundation	Adjust In-Place
11	Verizon Single Fiber Optic	Settlers Landing Road at I-64 WB Station 1765+25 and I-64 EB Station 764+35	B-676 Pier 1 Foundation	Adjust In-Place
12	Cox Communications 1 - Cable	Rip Rap Road at I-64 WB Station 1681+80 and I-64 EB Station 680+80	WB/EB B-659 Pier 1 Foundations	Adjust In-Place
13	Cox Communications 2 - Cables	Rip Rap Road at I-64 WB Station 1682+25 and I-64 EB Station 681+60	WB/EB B-659 Pier 2 Foundations	Adjust In-Place
14	Cox Communications 1 - Cable	King Street I-64 WB Station 1699+30 and I-64 EB Station 699+55	WB/EB B-672 Pier 2 Foundations	Adjust In-Place
15	Cox Communications 1 - Cable	South Boxwood at I-64 WB Station 1741+75	B-674 Bent 29 Foundation	Adjust In-Place

Plan ID	Utility/Owner Description	Approximate Location	Potential Conflict	Relocation Plan/ Mitigation Strategy
16	Cox Communications 1 - Cable	Settlers Landing Road at I-64 WB Station 1765+25 and I-64 EB Station 764+35	WB/EB B-676 Pier 1 Foundations	Adjust In-Place
OVERHEAD ELECTRIC				
17	Dominion Energy Overhead Electric	I-64 WB Station 1711+00 and I-64 EB Station 710+95	Road Widening and Noise Barriers 'ABCD2' and 'DJKL'	Raise Overhead Lines
18	Dominion Energy Overhead Electric	I-64 WB Station 1774+90 and I-64 EB Station 774+53	Road Widening, Noise Barrier 'G' and Retaining Wall '7'	Raise Overhead Lines
19	Dominion Energy Overhead Electric	I-64 WB Station 1775+35 and I-64 EB Station 775+00	Road Widening and Noise Barrier 'G'	Raise Overhead Lines
WATER				
20	Newport News Waterworks Waterline Crossing	I-64 WB Station 1668+15 and I-64 EB Station 667+00	Road Widening and Noise Barriers 'ABCD1' and 'M'	Design Storm Sewer and Foundations to Avoid
21	Newport News Waterworks Waterline Crossing	I-64 WB Station 1672+00 and I-64 EB Station 671+55	Road Widening and Noise Barriers 'ABCD1' and 'M'	Design Storm Sewer and Foundations to Avoid
22	Newport News Waterworks Waterline Crossing	I-64 WB Station 1675+50 and I-64 EB Station 675+00	Road Widening and Noise Barriers 'ABCD1' and 'M'	Design Storm Sewer and Foundations to Avoid
23	Newport News Waterworks Waterline Crossing	I-64 WB Station 1711+00 and I-64 EB Station 711+00	Road Widening and Noise Barriers 'ABCD2' and 'DJKL'	Design Storm Sewer and Foundations to Avoid
24	Newport News Waterworks Waterline Crossing	I-64 WB Station 1716+50 and I-64 EB Station 716+40	Road Widening and Noise Barriers 'ABCD2' and 'DJKL'	Design Storm Sewer and Foundations to Avoid
SEWER				
25	Hampton Roads Sanitation District 4" Sanitary Force Main	South Boxwood at I-64 WB Station 1741+75	Potential conflict with B-674 Bent 29 Foundation	Relocate In-Kind
GAS				
26	Virginia Natural Gas Gas Line	River Street - I-64 WB Station 1721+00	B-674 Pier 1 Foundation	Adjust In-Place
27	Virginia Natural Gas Gas Line	Settlers Landing Road - I-64 WB Station 1767+00 and I-64 EB Station 765+35	WB/EB B-676 Pier 3 Foundations	Adjust In-Place

Schedule Integration, Mitigation of Delays

To manage the risk of utility conflicts impacting the schedule, our approach fully integrates this discipline into the design, right-of-way, permitting, construction, and scheduling activities. During construction, the Lead Utility Coordination Manager constantly monitors the progress of relocations to identify schedule concerns quickly. If encountered, the schedule is reviewed for re-sequencing opportunities, and the utility is tasked with taking measures to mitigate the delay impact.

During the preparation of this Technical Proposal, our Team coordinated with the relevant utility companies to develop design avoidance measures, relocation design, and relocation phasing and schedule for each impacted utility. This information, coupled with historical data captured from our past design-build experience, is integrated into our overall construction sequence and is reflected in our Proposal Schedule included in Section 4.6.

Encountering unexpected utilities is a risk that can cause many challenges, including added cost and potential delays to the schedule. The following are strategies that our Team has utilized on past projects that successfully limited these risks:

Early Coordination: Our Team has already begun early coordination with each utility owner. Our efforts have included obtaining As-Built drawings and GIS mapping to ensure the utility designations are complete and accurate. This coordination and review of the existing facilities will limit the risk of discovering an unidentified utility during construction.

Redesign of Project Features: When an unknown utility is identified, we will immediately perform an as-built survey of its location and overlay it with the design to determine the extent of the conflict. We will then review options with affected disciplines to redesign elements that minimize and avoid conflicts. If a redesign is feasible, the design team will issue a formal Plan Revision to the Team.

Adjust In-Place: If an unidentified utility is discovered during construction, our Team has successfully raised, lowered, or performed a lift and lay operation to eliminate the conflict. Adjusting the utility in place eliminates conflicts without the need for a complete relocation and limits schedule impacts.

Assisting in Construction of the Relocation: Another method to handle unidentified utility conflicts is assisting the utility companies with the utility relocation. We have assisted in constructing duct banks, performed directional drilling, and drilled poles to expedite relocations. Assisting with the relocation will allow our Team to control the schedule of a portion of the relocation, reducing the risk of delays.

Scheduling Strategies: Should unknown utility challenges develop, the Lead Utility Coordination Manager will review the issue with the Construction Manager to identify opportunities for re-sequencing the work, providing additional lane closures, extending work hours, supplementing resources, or any combination thereof. Extra scrutiny will be placed on the utility's performance and progress until we are satisfied that the overall schedule will not be impacted.

4.4.3 Geotechnical Approach

The Project is located in Virginia's Coastal Plain Geologic Region which presents a variety of challenging geotechnical conditions. This geology is characterized by soils ranging from wet and soft subgrade soils (near-surface) to deeper soft, compressible, plastic clay soils. These types of soils increase the risk for potential unsuitable subgrade soils, soft/loose soils for deep foundations, and settlement or reduced stability of new fills and embankments. Our Team has reviewed the geotechnical data presented by VDOT, drawn from our experience within the geologic region and along I-64, and participated in multiple Technical Working Groups to develop a concept and approach that minimizes or mitigates the geotechnical risks.

Prior to acquiring additional geotechnical data, a further comprehensive review and evaluation of all available Project geotechnical information will be completed. A thorough site review will be conducted to confirm the potential geotechnical risks, identify any additional site constraints, and tailor the geotechnical exploration program to address the geotechnical challenges relative to the proposed design. The sequence of the subsurface exploration will be coordinated such that the test borings required for the design of the bridges and critical slopes will be completed early, allowing design activities on critical elements to be advanced without impacting either the design or construction schedule. The final investigation plan will focus on soft soils at embankment widening locations, supplemental CBR and resilient modules testing of subgrade soils, retaining wall locations, and bridge substructure locations.

The challenges surrounding the soil types found within the Project limits could result in settlement for roadway embankments, bridge piers, abutments, and global stability issues. These soils can also present challenges in maintaining or reconstructing existing slopes, working within the vicinity of existing structures, and maintaining existing structures. Several of our Team's proposed design enhancements provide benefits towards addressing or minimizing potential impacts associated with these risks. Specifically, the adjusted pier and bent layout on the EB I-64 Bridge over the Hampton River will reduce the likelihood of construction impacts on the existing WB piers and bents which will remain. Also, the adjusted profile for EB I-64 between the Hampton River and East Branch bridges will reduce placement of additional fill and minimize the potential for settlement concerns during and following construction.

Our supplemental geotechnical investigations will be developed based on VDOT's *Materials Manual of Instruction* (MOI) minimum requirements. All additional exploration, investigation, and testing will be performed to enable preparation of a design level Geotechnical Engineering Report (GER). As the RFP GDR indicates, unsuitable soils, CBR values through the corridor, and possible layers of soft and/or highly-plastic soils warrant specific consideration. Sampling and testing of in-situ soils will be focused on obtaining field and laboratory soil data to provide an accurate estimate of the magnitude and time rate of settlement and stability of embankment widening and approach embankments. In addition to conventional SPT drilling, sampling and standard soil index testing, we plan to perform CPTu, Shelby tube sampling, consolidation tests, and direct shear and triaxial shear testing to support the settlement calculations, global stability analyses, and bridge and retaining wall structure foundation designs. Groundwater monitoring wells are also planned to document as-drilled and long-term water levels.

Detailed information on anticipated Project risks, potential impacts, and mitigation strategies our Team intends to utilize to minimize or avoid risks are outlined in Table 9 below.

Table 9 - Geotechnical Risks and Mitigation Strategies

Challenge	Potential Impact	Mitigation Strategy
Unsuitable Subgrade Soils	▪ High moisture, unsuitable for support of roadway without treatment. ▪ Shallow groundwater table may cause temporary rise during construction.	▪ Mechanically dry the soils to optimum moisture content or use a drying additive to reduce the moisture. ▪ Install drains to relieve temporary water pressures. ▪ Complete additional field exploration to identify unsuitable soil locations. ▪ Adjust vertical profile to minimize embankment placement.
Soft and/or Loose Soils for Deep Foundations	▪ Large settlements. ▪ Additional downdrag on foundations. ▪ Global stability.	▪ Use lightweight fill. ▪ Ground improvements. ▪ Excavation and replacement. ▪ Install PV drains. ▪ Surcharge fills. ▪ Staged construction.
Maintaining or Reconstructing Existing Slopes	▪ Slope failure. ▪ Discovery of shallow ground water. ▪ Inadequate slope and global stability for placement of additional fill material. ▪ Long term settlement behavior of embankment. ▪ Restricted ROW conditions require fill slopes to be designed as reinforced slope or require the use of retaining walls.	▪ Adjust vertical profile to minimize embankment heights. ▪ Install temporary groundwater monitoring wells to record long-term groundwater. ▪ Perform additional field investigations (VST and DMT). ▪ Perform probabilistic analysis related to shear strength parameters. ▪ Incorporate laboratory test results from vane shear testing. ▪ Incorporate displacement monitoring during construction.

Challenge	Potential Impact	Mitigation Strategy
Working within the Vicinity of Existing Structures	▪ Additional downdrag on existing foundations. ▪ Slope and global stability. ▪ Differential settlement.	▪ Adjust horizontal alignment and use spline grade to minimize slope widening. ▪ Use of pin piles to address global stability concerns. ▪ Develop a zone of influence based on the vibration and settlement criteria. ▪ Perform additional field investigations (VST and DMT). ▪ Use of drilled foundation system. ▪ Instrumentation and monitoring.
Maintaining Existing Structures	▪ Localized liquefaction due to consolidation of soils during pile driving. ▪ Additional downdrag on existing foundations. ▪ Pile heave.	▪ Perform preconstruction survey of existing structures and surrounding areas. ▪ Install structural monitoring points. ▪ Determine threshold level and action level vibration limits based on conditions of existing structures. ▪ Monitor vibrations on existing bridges during pile driving. ▪ Prebore piles to eliminate vibration concerns. ▪ Complete instrumentation and monitoring during construction.

4.4.4 Quality Assurance/Quality Control (QA/QC)

Quality is measured by meeting or exceeding VDOT's requirements, specifications, and expectations. By implementing a formal QA/QC Plan, our Team will effectively navigate through the processes, reviews, and reporting activities required to meet quality guidelines and deliver this Project to VDOT, the citizens of the City of Hampton, and the traveling public on time and on budget. We will reinforce to all Team members that quality starts with the individual.

The QA/QC Plan will detail expectations of our Team, roles and responsibilities of each Team member, interactions of Team members, methods to determine proper staffing for the work, testing and inspection requirements, and specific requirements for communication and documentation. The QA/QC Plan will be a living document and will be refined and adapted throughout the life of the Project and will meet *VDOT's Minimum Requirements for Quality Assurance and Quality Control on Design-Build and Public-Private Transportation Act Projects, July 2018 (VDOT's QA/QC Guide*.)

Design QA/QC Approach

Our approach to design QA/QC includes implementing multiple processes with various QA/QC personnel. This ensures that appropriate quality standards are included in the plans and other design documents, suitable materials are selected, and work is constructed in a safe manner. Our design QA/QC process is well-structured, easily audited and is continually maintained to minimize VDOT's resource requirements.

Design QA/QC Plan

The Design Manager (DM) implements and manages the overall Design QA/QC program (a subset of our QA/QC Plan) which identifies design quality assurance and quality control requirements. The Design QA/QC program establishes the following:

- Procedures for preparing and checking all drawings, specifications, and other design submittals including procedures to correct errors and deficiencies prior to submission;
- Processes to ensure design submittals are signed, sealed, and dated by the responsible Professional Engineer licensed by the Commonwealth of Virginia;

- Actions to confirm that the level, frequency, and methods for review of design, including independent review, follow VDOT's functional requirements;
- Procedures for ensuring that designs developed by different disciplines are coordinated and avoid conflicts, omission, or misalignments;
- Procedures for identifying elements of design that require special construction QA/QC attention or emphasis;
- Identification by firm, discipline, name, qualification, duty, responsibility, and authority for all personnel and/or entities responsible for Design QA/QC, including subconsultants; and
- Establishment of Design QA/QC functions, including scheduled activities for design QA/QC, identifying the drawings, specifications, and other design submittals that will be submitted to VDOT.

The DM verifies conformance with the QA/QC Plan using informal observations and by conducting audits of the checking and review processes established within the QA/QC Plan. Documents identified as "Approved for Construction" are accompanied by written notification certifying that the documents were reviewed in accordance with the QA/QC Plan.

Our QA/QC Process for Deliverable Documents:

1. **Creation of the QC Document (copy of the deliverable) by the Originator.**
2. **The QC Document is then dated, reviewed, and "red-lined" as appropriate by the design discipline leads.**
3. **The QC Document is returned to the Originator.**
4. **The Originator "highlights" the "red-line" comments. Discussions of the comments with the discipline leader for final determination, making note of final resolution.**
5. **Originator keeps the QC Document for record purposes.**
6. **The Design Quality Assurance Manager provides oversight that design activities adhere to this process and records all reviews.**

Design Review

Design Quality Control includes review of drawings, engineering computations, and other design related documents for technical accuracy, conformance to Contract requirements, as well as form, content, and spelling. Design Quality Assurance evaluates whether the designers assessed problems appropriately, applied correct analyses, and assigned qualified personnel to tasks when conducting design related activities.

Design Quality Control functions are provided by design discipline leads checking completed work and are carried out to a level commensurate with the complexity of the design element. This effort is managed by the DM who ensures formal and documented reviews occur at predetermined times for submitted design documents as identified within the QA/QC Plan.

The Design QA Manager performs Design Quality Assurance reviews as set forth in the QA/QC Plan. He verifies that required quality control functions were performed properly, and in conjunction with the DM, directs the correction of nonconforming design practices. He ensures that design standards, methods, and requirements are met, professional engineering judgment was applied correctly, and appropriate degree of care was utilized.

Interdisciplinary Coordination

Coordination between disciplines is critical to the success of the Project, not just during design, but also during ROW acquisition, utility relocation, permitting and construction phases. Interaction between all discipline leaders through all phases leads to properly coordinated Project elements and minimal impacts to the schedule.

During design, weekly meetings are held where design details are discussed and coordinated with the multiple design discipline leaders including roadway, structural, hydraulics, geotechnical and traffic engineers. During this interdisciplinary review, the Entrusted Engineer-in-Charge (EIC) will serve as a conduit between the Construction and Design Teams. Environmental permitting, utility relocation, ROW acquisition, and construction staff are involved to ensure design progresses in a manner which considers environmental commitments, utility conflicts, property impacts, construction means and methods, and schedule. Potential conflicts or challenges are recognized and discussed at these meetings, and the entire Team can efficiently identify alternate solutions. Coordination between disciplines continues beyond the design phase, ensuring that unforeseen situations which may arise are addressed efficiently and collectively.

Constructability Review

From our combined experience delivering multiple design-build projects for VDOT, we have found that regular, informal, over-the-shoulder type reviews from construction personnel work best to produce quality designs. These types of reviews are conducted at weekly internal progress meetings where plans are presented to the construction personnel who are building pieces of the Project. Immediate feedback regarding the design is provided and appropriate adjustments are discussed so that unnecessarily difficult, unsafe, or out of sequence construction is avoided. Explanations regarding design requirements are conveyed to construction personnel, ultimately resulting in a greater overall understanding of Project requirements.

In addition to informal constructability reviews, the Design-Build Project Manager (DBPM) coordinates formal reviews of the design by construction personnel prior to each plan submission. Comments regarding the constructability of the design is provided to the DM for incorporation and/or further discussion prior to completing each design phase.

Quality Assurance and Quality Control of Design and Field Changes

Design changes, including field adjustments, are subject to the same procedures stipulated in the QA/QC Plan. Requests for field changes are reviewed by the engineer that performed the original design and reviewed for compliance with the Contract. The DM and Construction Manager (CM) will review the nature of the change to determine whether it is minor and can be issued as an RFI or if a formal Plan Revision is required. Each change is submitted to VDOT for concurrence prior to implementation.

Construction QA/QC Approach

Our Team's Construction QA and QC procedures, further described in our QA/QC Plan, have been established to conform to *VDOT's QA/QC Guide*. Our Plan provides the specific requirements for the Project and encompasses procedures for Construction QA, Construction QC, VDOT's role, materials testing, inspections, documentation, auditing, and recovery. Schedule and coordination of QA and QC activities are addressed including Witness and Hold Points for inspection of work at critical stages. During construction, the QA and QC Teams follow the established and approved QA/QC Plan. This Plan is structured to ensure that the QA and QC functions are performed independently and that procedures are followed closely and verified through audit processes. Key elements of our Construction QA/QC approach are outlined in the following narrative.

Construction Quality Assurance

Our QA Team is led by the Quality Assurance Manager (QAM) who reports directly to the DBPM and oversees QA for all construction activities. Working independently from the designers, contractor and QC Team, the QAM has the responsibility and authority to report any findings directly to VDOT and stop any work that fails to meet contract requirements. He oversees the personnel responsible for performing QA inspections and testing. He will act on behalf of VDOT to ensure that all work and materials, testing, and sampling are performed according to the Contract's requirements and the Approved for Construction (AFC) plans and specifications.

The QAM will be supported by a Deputy Quality Assurance Manager (DQAM) and two full-time Lead QA Inspectors - one Roadway and one Bridge. QA staff levels will be monitored and adjusted in coordination with the construction schedule and Inspection and Testing Plan (ITP) developed for each Work Package to ensure compliance with *VDOT's QA/QC Guide*, and so that VDOT resources are minimized.

The QAM conducts Preparatory Inspection Meetings (PIMs) for all major trades and work activities. These meetings are held prior to the start of any new work packages and are attended by the CM, Superintendents, subcontractors, QA staff, QC staff, and VDOT. QA and QC procedures are reviewed in detail and Witness and Hold Points are identified. QA inspectors perform daily inspections and material testing as required to meet all QA sampling, testing, and analysis of materials. The QA team ensures that construction quality is verified at frequencies meeting or exceeding those required by the *VDOT Construction Manual, the Materials Manual of Instructions*, and the *VDOT's QA/QC Guide*. All QA inspectors complete daily inspection reports and document all QA Independent Assurance (QA IA) and Verification Sampling and Testing (QA VST). The QAM compares QA IA and QA VST results with the QC, Owner Independent Assurance (OIA) and Owner Verification Sampling and Testing (OVST) results for consistency.

Construction Quality Control

The Quality Control Team, led by the Quality Control Manager (QCM), are responsible for daily QC inspections and material testing for all construction activities as directed by the CM. In addition, the QC Team is responsible for all QC sampling, testing and analysis of materials and verifying quality at frequencies meeting or exceeding the *VDOT Construction Manual*, the *Materials Manual of Instructions*, and the *VDOT's QA/QC Guide*. The QCM participates in preparing the QA/QC Plan, including the checklists utilized by QC inspectors.

ALL QC staff actively inspecting and/or testing components of work complete an Inspector Daily Report (IDR). The IDR's are electronic diaries in accordance with VDOT guidelines and include, as an attachment, copies of all QC materials tests completed for the day's activities. Signed hard copies of the IDR's are submitted to the QCM daily for review and approval and saved to a shared drive for access and immediate review by the QAM and VDOT. The QCM prepares and submits an electronic Quality Control Monthly Report which summarizes all work completed during the period, inspections, tests, materials placed, action taken for failing material, and NCR's. The QC Team coordinates daily with the construction staff to facilitate scheduling and coordination of testing and inspections.

Construction QA/QC Staffing Plan

Our QA/QC Team has the training and experience to properly execute the quality program and minimize VDOT's resources. All staff hold the applicable certifications required by the *VDOT's QA/QC Guide* for the work they are inspecting, and staffing levels will be adjusted, including night work, as needed to ensure inspection and testing coverage and frequencies are maintained. A summary of our anticipated staffing levels is shown in Table 10.

Table 10 - Anticipated Staffing Levels and Responsibilities

Design-Build Project Manager
Robbie Roberts, with the Shirley-Branch Joint Venture, serves as the DBPM and provides overall Contract administration. He is our Team's point of contact with VDOT, is responsible for the integration of all Project disciplines, compliance with the schedule, dispute resolution, coordination of public outreach and meetings, and establishment of the QA/QC program.
Entrusted Engineer-in-Charge
Maggie Cossman, PE, DBIA with the Shirley-Branch Joint Venture, is the EIC and reports to the DBPM. She is responsible for ensuring that all engineering work is integrated, is in conformance with the Contract Documents, and delivers a safe, constructible, and functional Project. Maggie will be assigned to the Project at the start of design, and will be on site full-time from commencement of construction through Final Acceptance.

Design Manager

Steve Kuntz, PE, DBIA with Dewberry Engineers Inc., serves as the Design Manager (DM) and has overall responsibility for the design process, including work by design subconsultants. Steve is responsible for establishment and oversight of the Design QA/QC program for all disciplines involved in design including review of design, working drawings, shop drawings, specifications, and constructability.

Quality Assurance Manager

Andy Kondysar, PE with Quinn Consulting Services, Inc., is the Quality Assurance Manager (QAM), reports to the DBPM and can report directly to VDOT. He is responsible for the development of and adherence to the QA/QC Plan, ensuring all construction activities, materials, inspections, testing, and sampling are performed in accordance with the Contract and approved construction plans and specifications. He has full written authority, provided by the DBPM, to stop any activity not complying with the Contract, and can recommend to VDOT that payment be withheld until the activity is brought into compliance. During the design phase, Andy will be available as needed and onsite full time for the duration of all construction activities.

Deputy Quality Assurance Manager / Lead Bridge QA Inspector

Perry Wenger, PE, with Quinn Consulting Services, Inc., reports to the QAM and serves as both the Deputy Quality Assurance Manager (DQAM) and Lead Bridge QA Inspector. As DQAM, Perry will be directly supervised and trained by the QAM and will perform similar duties under his direction. In his role as Lead Bridge QA Inspector, Perry will manage the QA process, with a focus on structures and bridges and supported by additional QA Inspectors as needed, ensuring that all construction activities are performed in accordance with contract requirements and observed by the QA team. Perry will be onsite full time for the duration of construction activities.

Lead Roadway QA Inspector

Cory Fout, with Quinn Consulting Services, Inc., is the Lead Roadway Inspector and reports to the QAM. In this role, Cory will manage the QA process, with a focus on roadway elements and supported by additional QA Inspectors as needed, ensuring that all construction activities are performed in accordance with contract requirements and observed by the QA team. Cory will be onsite full time for the duration of construction activities.

QA Inspectors, Testing Technicians and Laboratory — Staffing Level: 4-8

Quinn Consulting Services, Inc. will provide QA inspectors to ensure QA testing and inspections of all construction activities are performed, QC inspections are observed, and correction of non-conformities are completed in accordance with the Contract documents. The Lead QA inspectors report directly to the QAM.

McCallum Testing, LLC dba McCallum Testing Laboratories provides QA testing technicians and performs QA laboratory testing. McCallum is an AMRL certified laboratory and is independent from QC laboratory testing.

Construction Manager

Randy Plyler, with the Shirley-Branch Joint Venture, serves as the Construction Manager (CM) and has overall responsibility for construction and the QC program to ensure the materials used and work performed are in compliance with the Contract documents and approved plans. Randy will be onsite full time for the duration of construction activities.

Quality Control Manager

The **Quality Control Manager (QCM)** is responsible for construction quality control and oversees construction quality control testing and inspection operations. The QCM assigns inspectors and testing technicians for each work package and monitors the reporting documentation to ensure that the work packages were completed in conformance with the contract requirements.

QC Inspectors, Testing Technicians and Laboratory — Staffing Level: 4-8

Quality Control Inspectors, Testing Technicians and Laboratories are responsible for quality control testing and inspection of construction for conformance with the QA/QC Plan and completing required documentation. They will possess current VDOT materials certifications for the types of testing and/or inspections they are assigned to complete. An AMRL certified QC Laboratory, independent from the QA laboratory, will be utilized for all QC laboratory tests.

4.5 - Construction of the Project

4.5 Construction of the Project

4.5.1 Sequence of Construction

Throughout development of our Technical Proposal, our Team met weekly in Technical Working Groups to discuss and analyze the Project's risk elements. The schedule and access constraints associated with the bridge crossings of the Hampton River and East Branch have risen to be the greatest challenges on the Project. These challenges include but are not limited to the following:

- Permitting requirements of the United States Coast Guard (USGC) and other agencies having jurisdiction;
- Utility issues including overhead transmission and submarine communications lines;
- Space constraints and maintenance of traffic concerns with performance of the repairs and bridge deck overlays of the I-64 WB Bridge over Hampton River;
- Access issues at River Street Park and Boxwood Street; and
- Right-of-way required for the new I-64 EB Bridge over Hampton River.

The Sequence of Construction described herein has been developed by use of an integrated approach from all disciplines including design, permitting, right-of-way, utilities, and construction to address the constraints not only to the Hampton River Bridge crossings but to the entire Project. The Proposal Schedule, presented in Section 4.6, was developed using this integrated approach to determine solutions and mitigation strategies to ensure successful delivery of the Project. The results are numerous enhancements to the construction sequencing as presented in Table 11.

Table 11 - Construction Enhancements and Benefits

Enhancements	Benefits
Overall Planning and Sequencing of Construction	▪ ***Completion of Interim Milestone 61 days ahead of schedule.*** ▪ ***Commitment to Unique Milestone to open all lanes of traffic early.***
TTC Plan for EB/WB Hampton River and East Branch Crossovers	▪ Allows I-64 WB Bridge over Hampton River repairs to occur with traffic removed, creating accelerated construction and a higher quality bridge deck latex overlay, and improved safety. ▪ Crossovers will be constructed to serve both EB and WB traffic switches, saving time.
Use of Early MOT (TTC) Plan Set	▪ Allows critical Stage 1 construction work including outside shoulder strengthening and the Hampton River Bridge crossovers to begin prior to completion of environmental permitting and ROW acquisitions.
MOT (TTC) Sequencing	▪ Provide 9' shoulders in both major stages of construction, except across bridges and adjacent ramps. ▪ Safety and mobility benefits.
Logical segmentation of Project to three Work Areas	▪ Facilitates focused construction management teams and utilizes allowable maximum work zones for efficient staging and sequencing.
Construction of the I-64 EB Bridges over Hampton River and East Branch as independent structures	▪ Reduces total bridge deck area saving schedule and cost. ▪ Improves construction safety at the crossing of the overhead transmission line.
ITS Sequencing	▪ Early temporary relocation protects the integrity of the existing system. ▪ Allows integration of the new devices while existing systems are active.
Optimize Noise Barrier Locations	▪ Allows noise barriers to be constructed early in the schedule. ▪ Eliminates costly impacts to existing utilities. ▪ Reduces environmental impacts.

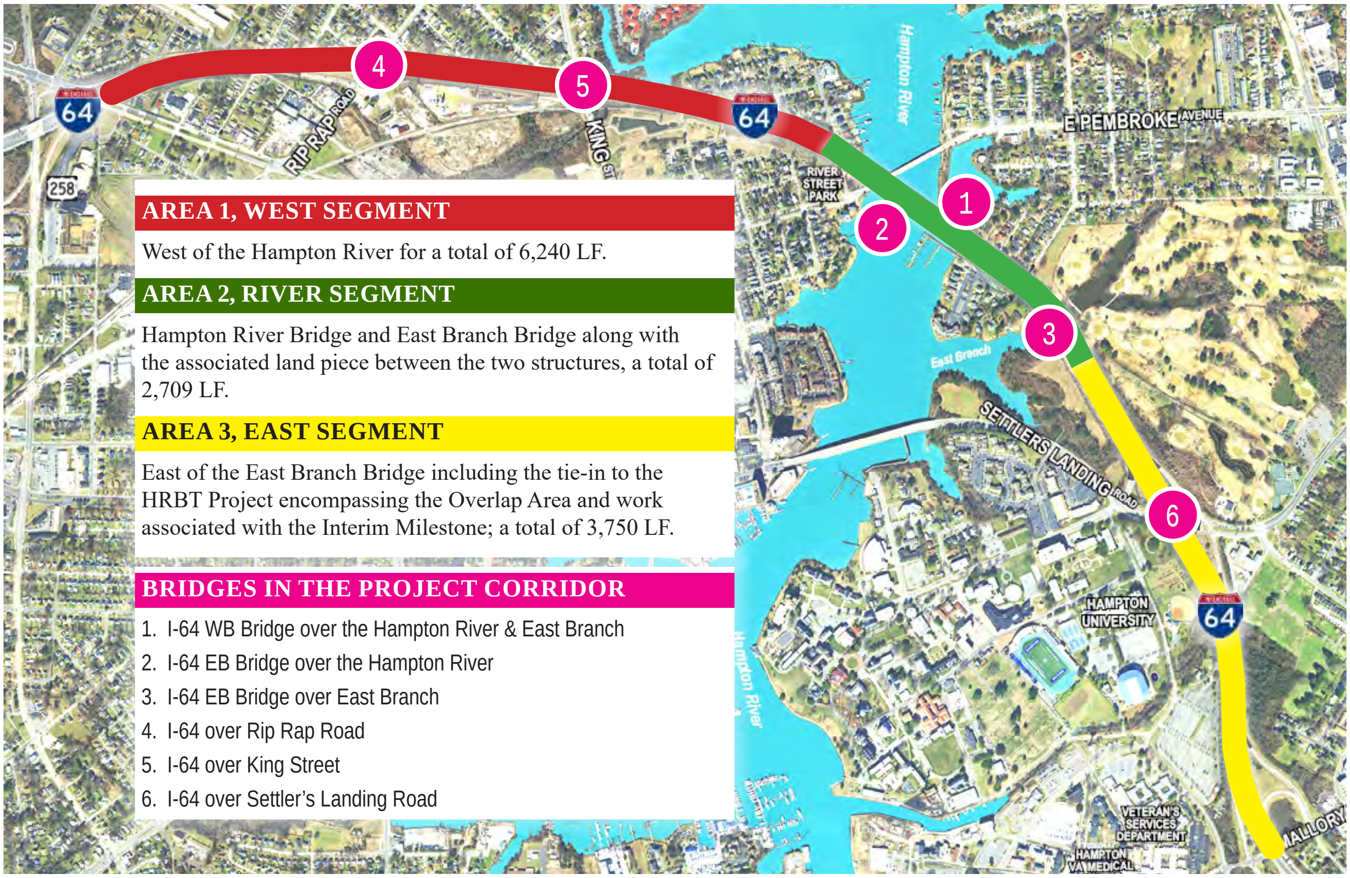
Project Work Areas

To efficiently execute our construction plan, the Project has been broken into two Roadway Work Areas and one Bridge Work Area as shown in Figure 4.5.1.1. The areas are divided by break points that allow for effective construction sequencing. This segmentation was also developed in conjunction with our Temporary Traffic Control (TTC) Plan and is of sufficient scope and size to allow individual construction management teams to oversee the operations. This allows for maximum utilization of resources and oversight of construction activities from a safety and quality perspective. The three Work Areas are:

Area 1 - West Segment: West of the Hampton River - Station 658+73 to 721+13 (6,240 LF).

Area 2 - River Segment: Bridges over Hampton River and East Branch along with the associated land piece between the two structures - Station 721+13 to 748+22 (2,709 LF).

Area 3 - East Segment: East of the East Branch Bridge including the tie-in to the HRBT Project encompassing the Overlap Area and work associated with the Interim Milestone - Station 748+22 to 785+72 (3,750 LF).



AREA 1, WEST SEGMENT

West of the Hampton River for a total of 6,240 LF.

AREA 2, RIVER SEGMENT

Hampton River Bridge and East Branch Bridge along with the associated land piece between the two structures, a total of 2,709 LF.

AREA 3, EAST SEGMENT

East of the East Branch Bridge including the tie-in to the HRBT Project encompassing the Overlap Area and work associated with the Interim Milestone; a total of 3,750 LF.

BRIDGES IN THE PROJECT CORRIDOR

1. I-64 WB Bridge over the Hampton River & East Branch
2. I-64 EB Bridge over the Hampton River
3. I-64 EB Bridge over East Branch
4. I-64 over Rip Rap Road
5. I-64 over King Street
6. I-64 over Settler's Landing Road

Figure 4.5.1.1 - Work Areas

Construction Sequence

We developed four major Stages of construction corresponding to our Team's Transportation Management Plan (TMP) detailed in Section 4.5.2. Each Stage corresponds to a major traffic control sequence as construction activities progress. Work along the 2.5-mile corridor, in all three Work Areas, as described above in Figure 4.5.1.1, will be constructed concurrently during each major traffic Stage. Exhibits 4.5.1.2, 4.5.1.3, and 4.5.1.4 depict our Temporary Traffic Control (TTC) plan for the major stages of construction.

EXHIBIT 4.5.1.2

LEGEND

- 🟦 Denotes Stage 1
- 🟧 Denotes Stage 2
- 🟪 Denotes Stage 3A
- 🟦 Denotes Stage 3B
- Temporary Concrete Barrier
- Group 2 Channelizing Device
- Flexible Post Delineator

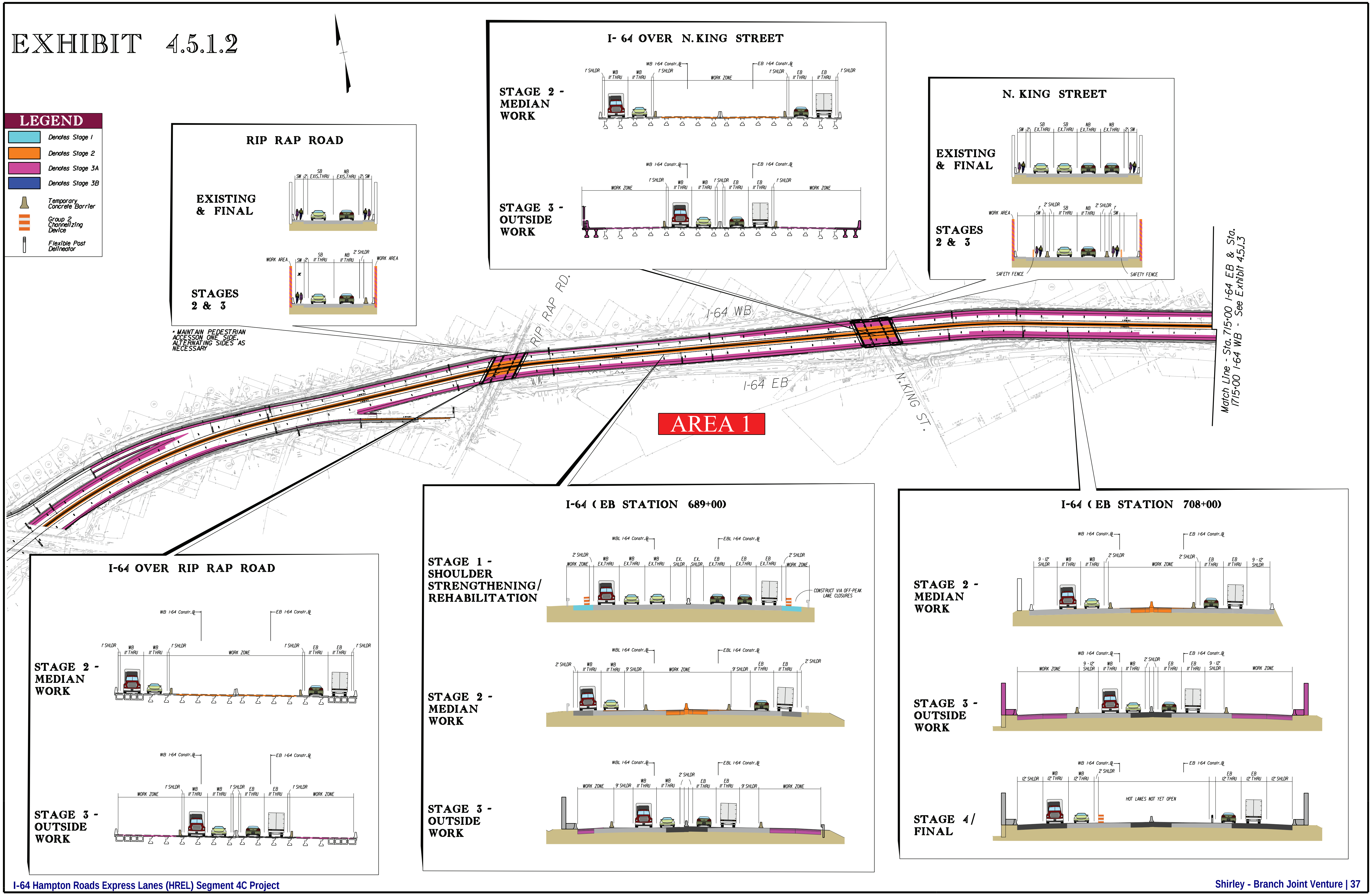
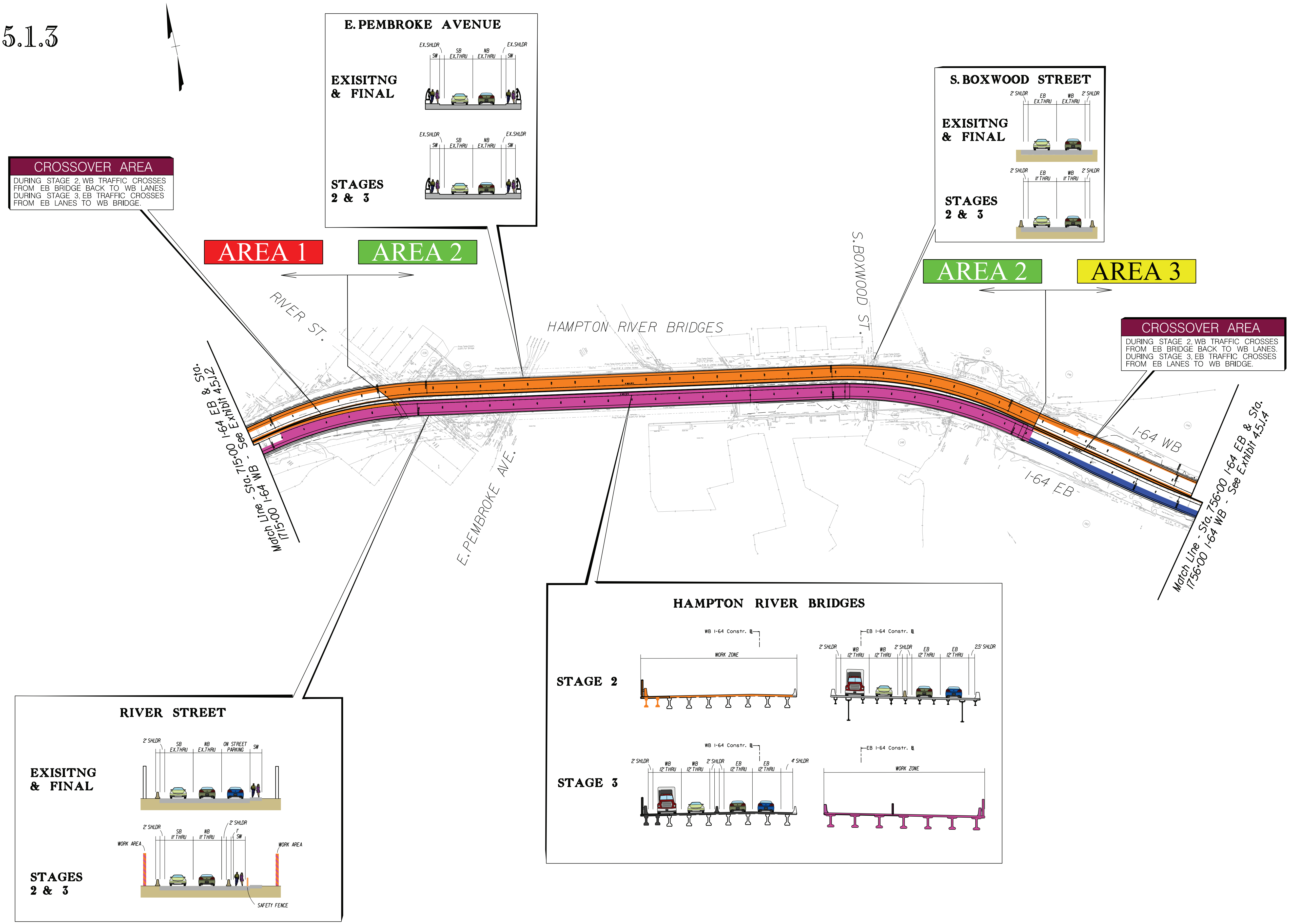


EXHIBIT 4.5.1.3

LEGEND

🟦	Denotes Stage I
🟧	Denotes Stage 2
🟪	Denotes Stage 3A
🟦	Denotes Stage 3B
▲	Temporary Concrete Barrier
▤	Group 2 Channelizing Device
▯	Flexible Post Delineator



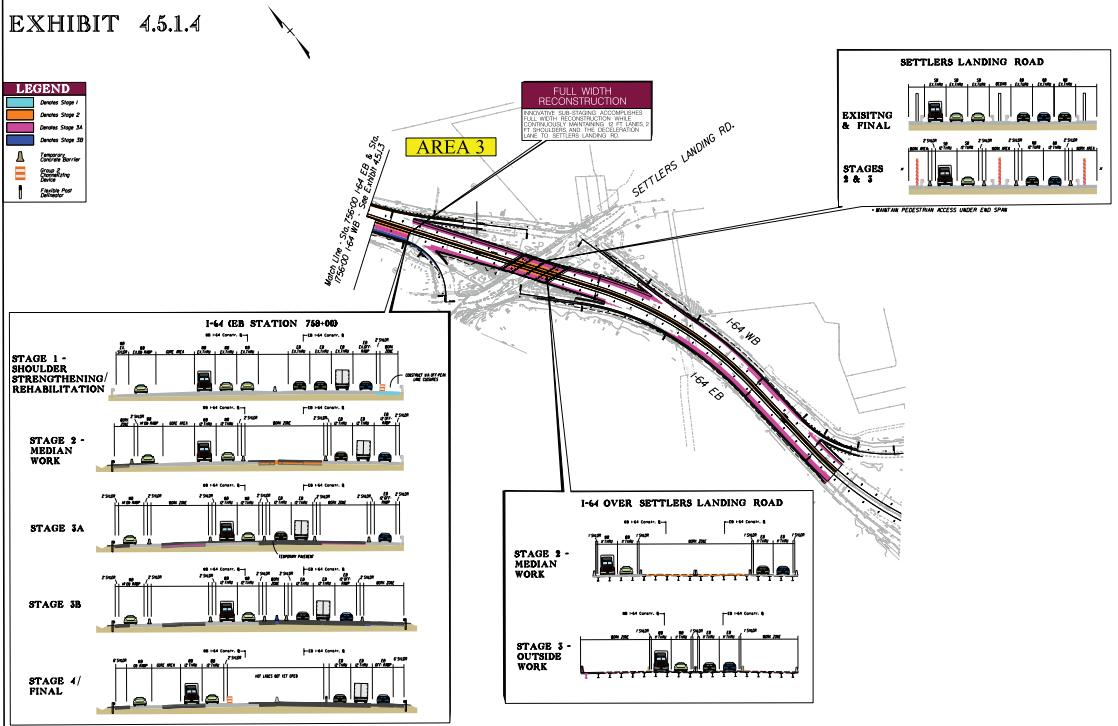
CROSSOVER AREA

DURING STAGE 2, WB TRAFFIC CROSSES FROM EB BRIDGE BACK TO WB LANES. DURING STAGE 3, EB TRAFFIC CROSSES FROM EB LANES TO WB BRIDGE.

CROSSOVER AREA

DURING STAGE 2, WB TRAFFIC CROSSES FROM EB BRIDGE BACK TO WB LANES. DURING STAGE 3, EB TRAFFIC CROSSES FROM EB LANES TO WB BRIDGE.

EXHIBIT 4.5.1.4



FULL WIDTH RECONSTRUCTION

INNOVATIVE SUB-STAGING ACCOMPLISHES FULL WIDTH RECONSTRUCTION WHILE CONTINUOUSLY MAINTAINING 12 FT LANES, 2 FT SHOULDERS, AND THE DECELERATION LANE TO SETTLERS LANDING RD.

A brief summary of our planned Construction Staging and Areas is shown in Table 12:

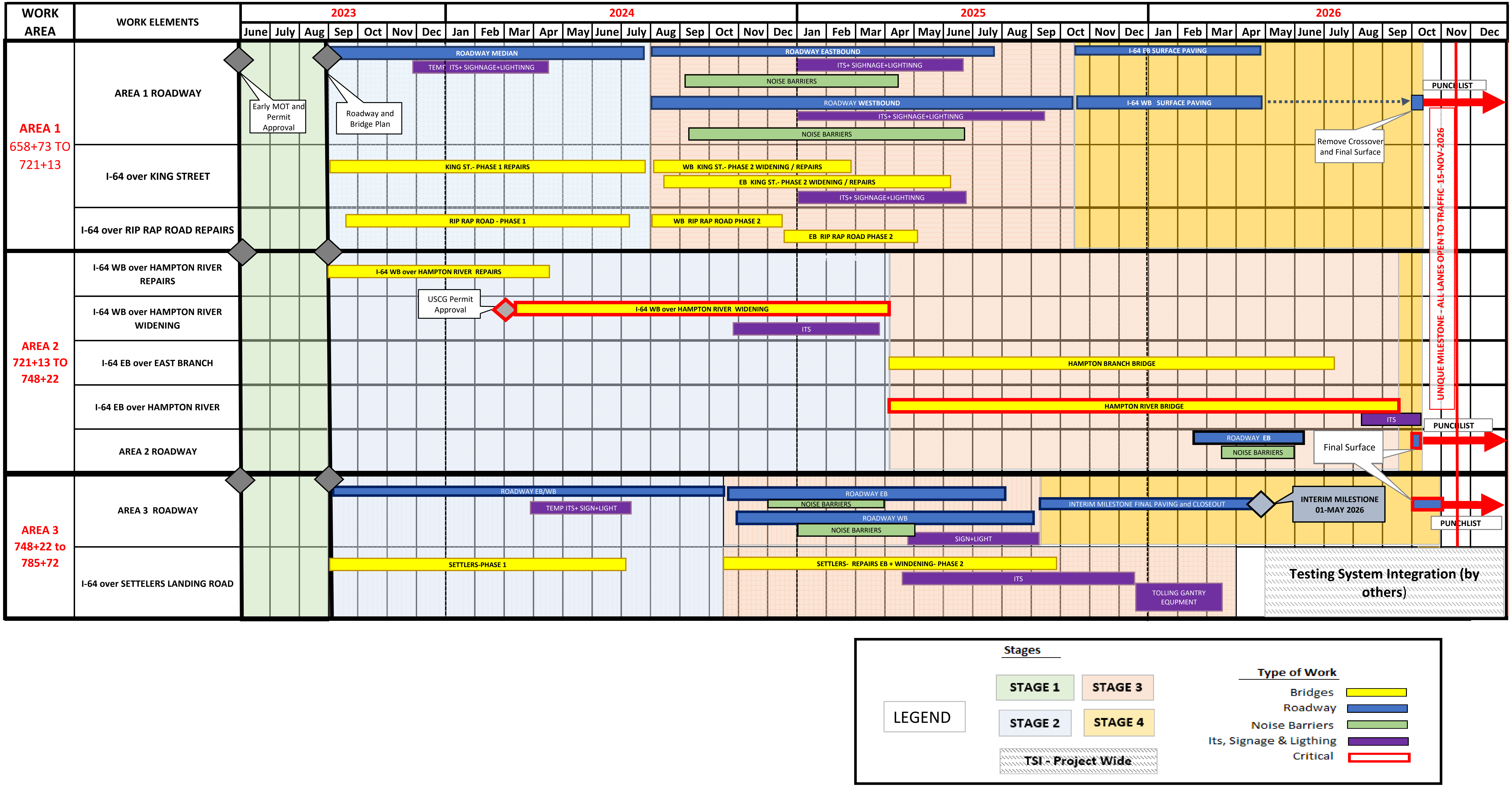
Table 12 - Stages, Work Areas and Major Elements

Stage	Work Areas	Major Elements
Stage 1	1 & 3	▪ Perform outside shoulder strengthening along both I-64 EB and westbound only in areas required such as bridge approaches and where full-depth pavement reconstruction is called for on the existing travel lanes. ▪ Place temporary pavement markings and shift traffic in temporary configuration towards the outside. ▪ Install crossover pavement at both ends of the Hampton River crossings to allow all WB lanes to switch over to the existing EB bridge.
Stage 2	1 & 3	▪ Reconstruct the median barrier, install drainage, and reconstruct full depth shoulders along both I-64 EB and WB in the median. ▪ Perform bridge repairs, abutment deck slab extensions, pier joint reconstruction, and bridge deck overlays at the interior portions of the I-64 bridges over Rip Rap Road, King Street, and Settlers Landing Road. ▪ Installation of temporary lighting and ITS.
	2	▪ Perform bearing replacements, bridge repairs, abutment deck slab extensions, pier joint reconstruction, and bridge deck overlays for I-64 WB Bridge over Hampton River ▪ Perform I-64 WB Bridge over Hampton River work.
Stage 3	1 & 3	▪ Switch traffic towards reconstructed median completed in Stage 2. ▪ Demolish existing outside shoulders and any mainline pavement. ▪ Install new roadway drainage. ▪ Perform widenings, joint repairs, deck slab extensions, and substructure improvements at the exterior portion of the I-64 bridges over Rip Rap Road, King Street, and Settlers Landing Road. ▪ Construct the retaining walls and noise barriers.
	2	▪ Switch both EB and WB traffic to completed WB bridge over Hampton River. ▪ Demolish and reconstruct the entire EB Bridges over the Hampton River Bridge and East Branch.
Stage 4	All	▪ Shift traffic to its final configuration. ▪ Place all surface asphalt, permanent pavement markings, permanent signing, and finishes. ▪ Complete systems testing, inspections, and punchlist.

The sequence of construction proposed by our Team provides flexibility throughout all Areas and Stages of construction. With the diverse talent of our Joint Venture Team, we are able to concurrently prosecute work in multiple Areas and construct different elements of work as the schedule dictates. Exhibit 4.5.1.5 graphically depicts our sequence of construction broken down by Area, Stage, and Major Work Elements such as Roadway, Bridge, Noise Barriers, ITS/Signage/Lighting, and Final Closeout.

As shown in the Exhibit, in Area 2, the critical path of the schedule runs through the repairs and the widening of the I-64 WB Bridge over Hampton River, and then progresses to the demolition and reconstruction of the I-64 EB Bridges over Hampton River and the East Branch. Meanwhile, in Areas 1 and 3, the roadway and other major structures are being constructed concurrently. As the Project moves towards completion, Area 3 will completed first to meet the Interim Milestone with all lanes of I-64 EB and WB to the east of the I-64 Bridges over Settlers Landing Road open to traffic for safe and unrestricted use. The balance of final pavement surfacing will be staged so that areas of the Project can be completed and opened to traffic continuously from end to end with all signing, lighting, and ITS systems in-place and operational.

Exhibit 4.5.1.5 Sequence of Construction and Summary Schedule



Detailed descriptions of each Stage and the benefits of our proposed sequence are described as follows:

Stage 1 - Outside Shoulder Strengthening and Crossovers

Stage 1 - Areas 1 and 3

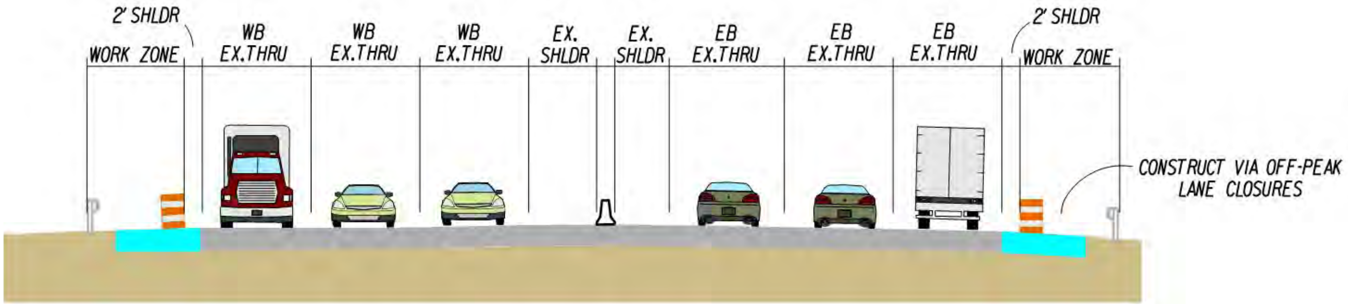


Figure 4.5.1.6 - Stage 1 Strengthen Outside Shoulder

All Stage 1 work is within existing VDOT ROW and requires no drainage adjustments. Upon approval of the early TTC Plan Set, we will begin the outside shoulder strengthening as shown in Figure 4.5.1.6. This strategy allows the lane shift to the outside to be completed prior to final plan approval and receipt of environmental permits. The varying depth existing shoulder will be removed by milling and repaved with temporary base and intermediate asphalt. This shoulder strengthening operation will be performed at night with lane closures. Operations will be planned so that no drop-offs greater than 2” remain at the end of any shift. Traffic will be shifted to the outside at completion of the shoulder strengthening.

Median crossovers shown in Figure 4.5.1.7 will be constructed at both the east and west ends of the Hampton River and East Branch bridge approaches. The crossovers will allow all WB I-64 traffic to transition onto the existing EB bridge structures. The crossovers will be constructed to be used for the subsequent Stage 3 EB traffic switch required to demolish and reconstruct the EB Hampton River and East Branch structures. Upon completion of the crossovers, all WB traffic will be shifted onto the EB bridge.

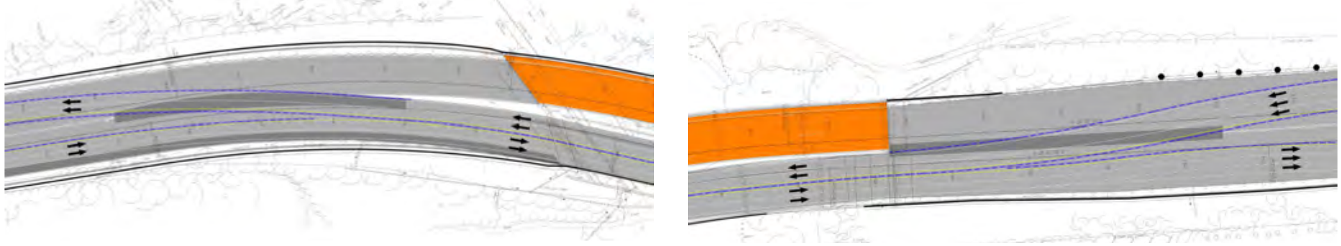


Figure 4.5.1.7 - Stage 1 Crossovers at Hampton River Crossings (West Approach shown on Left, East Approach shown on Right)

Stage 2 - Median Reconstruction, Bridge Repairs, and WB Hampton River Bridge Widening

Stage 2 - Area 1

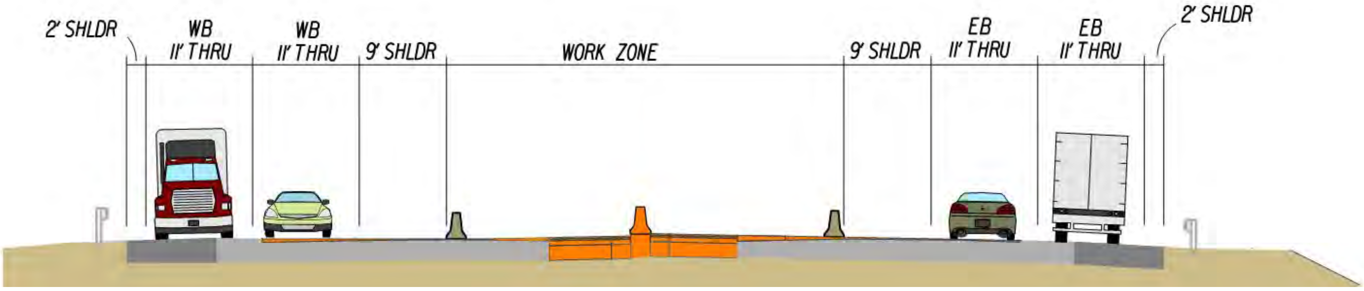


Figure 4.5.1.8 - Stage 2 Inside Median Reconstruction

Following the shoulder strengthening and traffic switch in Stage 1, temporary pavement markings and markers will be placed on the newly aligned areas and temporary concrete barrier set along the entire length of the Project to safely separate traffic from the Stage 2 median work as shown in Figure 4.5.1.8.

In Stage 2, our Team will provide a 9' or wider shoulder providing safety and operational benefits. Narrower shoulders will only be utilized in limited constrained areas, such as across bridges and adjacent to ramps. The existing median barrier separating the two barrels of roadway will then be demolished along with the existing shoulders. All new longitudinal median drainage piping and inlets will be installed. New median drainage outfall pipes that cross under the existing lanes of I-64 will be installed using a trenchless jack and bore method. Following completion of new drainage and installation of the new median barrier, the inside shoulders will be reconstructed and paved to meet existing I-64 grades to allow appropriate surface drainage.

Both of the existing inside portions of the Rip Rap Road and King Street bridges will be repaired and rehabilitated. These two pairs of bridges will be worked on concurrently to economize the use of specialty crews for substructure repairs and latex overlay. Figures 4.5.1.9 and 4.5.1.10 depict the work areas available to perform the necessary bridge repairs for both of these bridges.

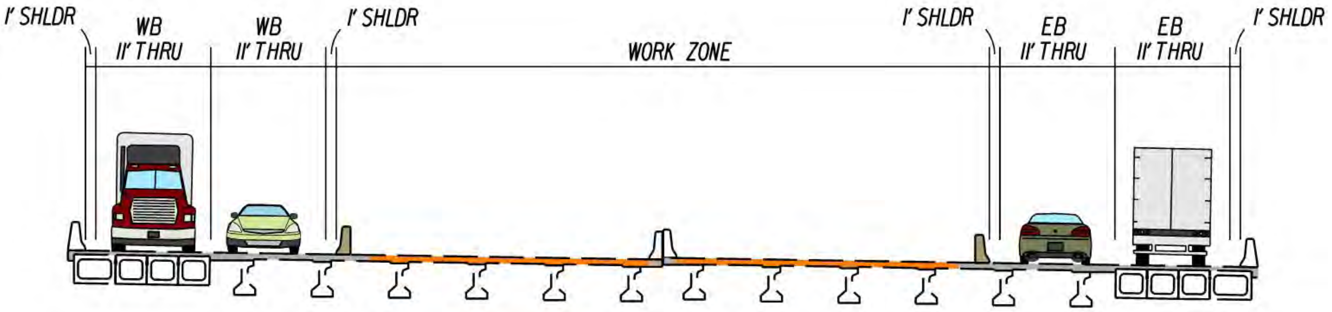


Figure 4.5.1.9 Stage 2 Rip Rap Road

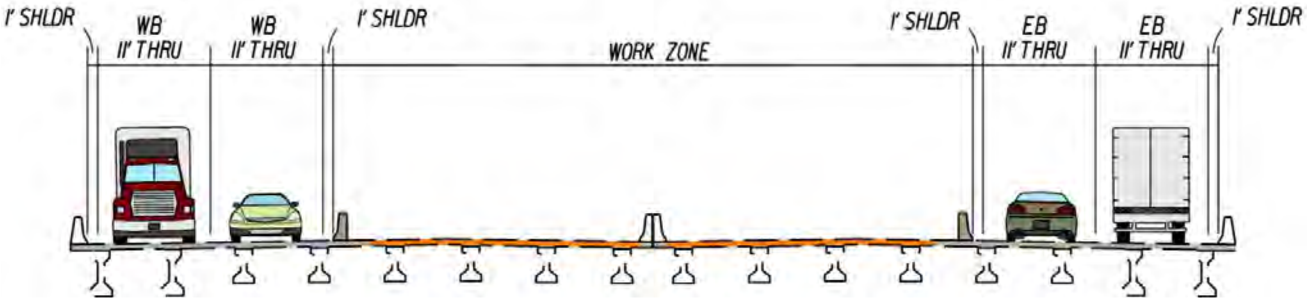


Figure 4.5.1.10 Stage 2 King Street Bridge

In this Stage, the following work sequence will be utilized for both Rip Rap Road and King Street:

Figure 4.5.1.11 Abutment Deck Slab Extension

- Prior to any repair work, the existing bearings will be replaced. The crews will stage jacking operations underneath the structures and perform the work under night-time lane closures.
- The new and existing portions of the bridge deck will be retrofitted to be continuous at pier locations.
- The existing abutments shall be retrofitted to use VDOT's standard deck extension detail with buried approach slabs as shown in Figure 4.5.1.11. This will

require complete replacement of the approach slabs and modification of the abutments.

- Repair of the existing bridge deck for the EB and westbound directions will include Type A milling to a depth of 1”, Type A hydro-demolition, deck repairs and construction of a rigid concrete overlay. The rigid concrete overlay will consist of Latex Modified Concrete which will extend from the hydro-milled surface up to the original grade of the deck surface as shown in Figure 4.5.1.12.


Figure 4.5.1.12 Bridge Latex Overlay

Stage 2 - Area 2

I-64 WB Bridge Over Hampton River Repairs

Work in this Stage includes the replacement of all bearing assemblies and anchor bolts; clean and repair of bearing seats; modification of abutments; joint replacements; repair and spot coat of structural steel in Spans 36 and 37 and the integral pier cap at Pier 37; and latex overlay of the deck. This work will be included in an early works package that starts before the WB bridge widening, pending the issuance of the USCG Permit. By shifting all traffic to the EB bridge structure, our Team will complete the repairs entirely without requiring multiple traffic switches. This provides VDOT with a better quality finished product by performing the latex overlay without traffic on the same structure and without construction joints and improves worker and motorist safety. The main access for this work will be the top of the existing bridge, while the bearing repairs will be performed by bridge access platforms and manlifts underneath the bridge.

I-64 WB Bridge Over Hampton River Widening

The WB widening will start upon receipt of an approved USCG Permit. The scope of work includes an outside widening of the existing bridge by 12 feet. To expedite this work, our Team has divided the length of the bridge into four headings of work: Hampton Branch, Boxwood, Hampton River, and River Street Park as illustrated in Figure 4.5.1.13. Each heading of work will be performed independently with dedicated crews. The Boxwood and River Street Park headings will be land-based operations. Temporary access trestle systems will be required west of Pembroke Avenue Bridge, Hampton Branch and portions of the Hampton River headings that do not have the water depth to support marine operations.

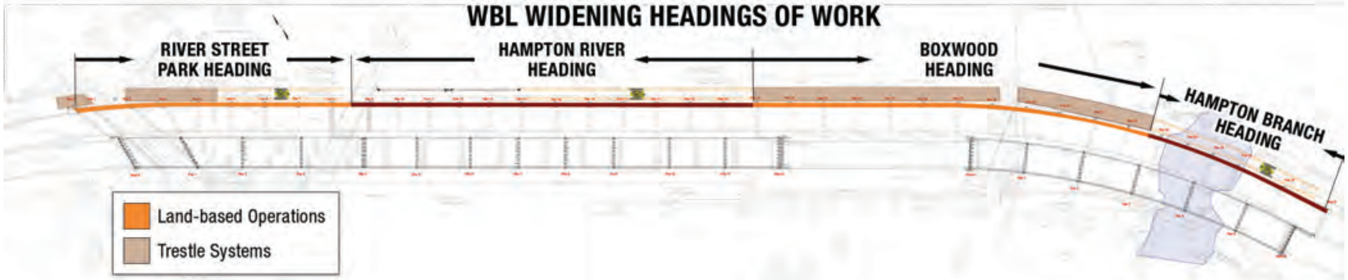


Figure 4.5.1.13 WB Hampton River Bridge Widening Headings of Work

Stage 2 - Area 3

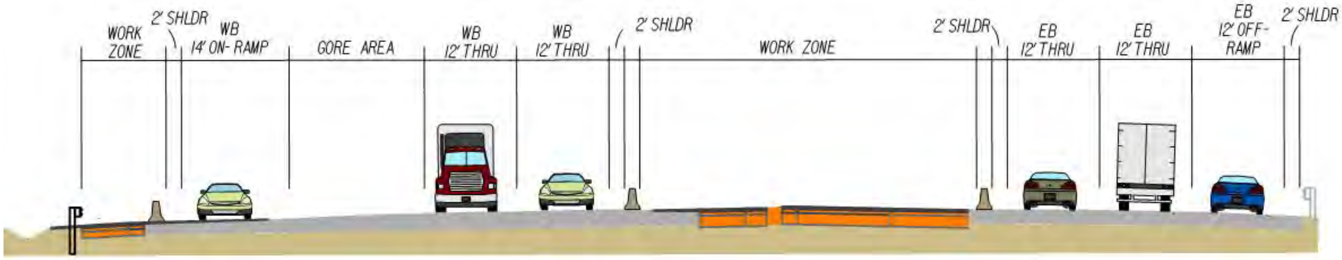


Figure 4.5.1.14 - Stage 2 Area 3 (Station 758+00) - Inside Median Reconstruction

Similar to Area 1, in Area 3, the existing median barrier separating the two barrels of roadway will be demolished along with the existing shoulders. New longitudinal drainage will be installed along with the trenchless crossings of I-64 for the lateral outlet pipes. Figure 4.5.1.14 depicts a typical work zone set up in the median with the ramps shown at Station 758+00.

During Stage 2, the Settlers Landing Road Bridges will undergo the same repair procedures as described for the Area 1 Bridges. The work zone is shown in Figure 4.5.1.15.

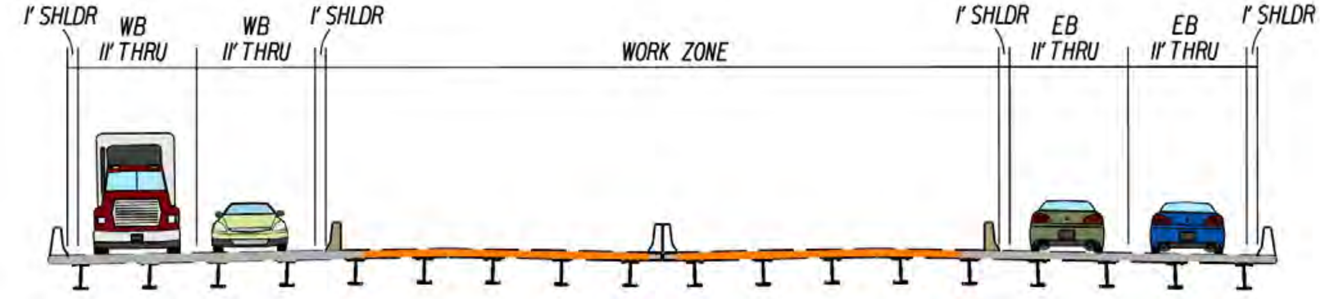


Figure 4.5.1.15 – Stage 2 Settlers Landing Road Bridge

Stage 2 – ITS/Lighting Pre-work

Our Team understands the criticality of beginning the ITS, signing, and lighting work as soon as construction starts. Material availability issues and long-lead times for furnishing materials must be mitigated to the extent possible so as to not impact the overall costs and schedule. Additionally, existing ITS assets and lighting conditions must be maintained until such time as the new ITS and lighting systems are installed and operational. The following measures are planned to mitigate these potential issues:

Early Procurement of Materials

As shown in our Proposal Schedule, shop drawings and catalog cuts for the tolling system, ITS, signing, and lighting materials are planned to start immediately upon approval of the plans. Long-lead times for fabrication and delivery are anticipated for the steel structures, ITS devices, generators, tanks, cabinets, and cabling. Procurement of these materials as early as possible during the construction phase will ensure all items are immediately available upon the start of installation during the applicable MOT phase. Early material procurements will also have the added value of minimizing potential cost escalations.

Temporary ITS/Lighting System

As an early construction activity, our Team plans to install temporary ITS and lighting systems to minimize the risk of accidental strikes or outages to the existing systems. Wooden poles with temporary luminaires will be installed along both sides of the I-64 corridor in locations that will not be adversely impacted by construction activities. Temporary ITS communications fiber will also be installed on the poles to help ensure continuity of service to the existing ITS devices during construction. Additionally, temporary communications fiber will be installed on the I-64 WB Bridge over Hampton River, which will result in a continuous temporary fiber run throughout the Project limits.

Stage 3 Outside Roadway Widening and EB Hampton River Bridge Reconstruction

Following completion of Stage 2 work, the travel lanes will be shifted towards the inside onto the newly constructed inside shoulder. On the right side, the existing traffic barrier service will be relocated to allow all Stage 3 work to commence behind the temporary barrier. Similarly, as in Stage 2, we will provide 9' shoulders throughout the majority of the alignment as shown in Figure 4.5.1.16.

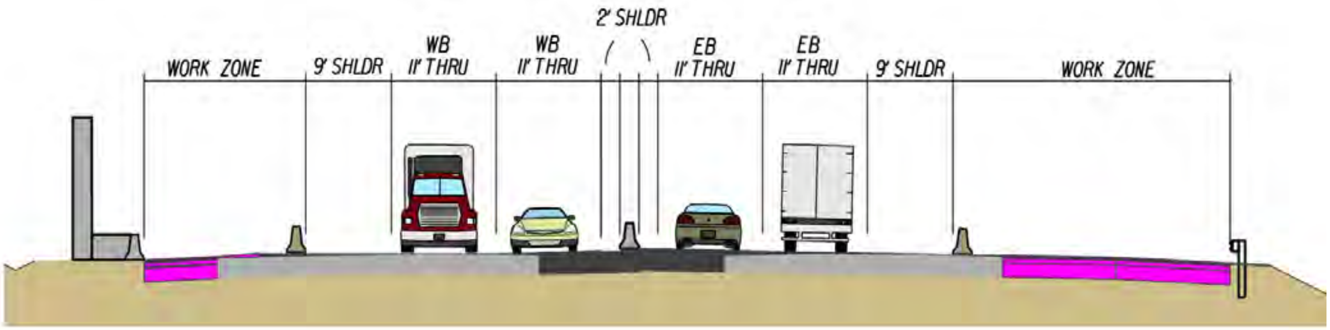


Figure 4.5.1.16 - Stage 3 – Outside Widening and Retaining Wall and Noise Barrier Construction

Stage 3 - Area 1

Both EB and WB portions of I-64 are widened with all of the existing shoulders and portions of the existing mainline being demolished and reconstructed with the new pavement section. All of the existing noise barriers will be demolished and replaced with either a new ground-mounted noise barrier or a combination retaining wall and noise barrier. Retaining walls and noise barrier construction will control the earthwork movements in this Stage as over 4,300’ of walls EB and 3,600’ of walls westbound will be constructed. Following completion and backfill of retaining walls and noise barriers, all new outside drainage will be installed along with new sign foundations, lighting systems and ITS conduits and devices. The new pavement section will be placed and MB-7D barrier installed as shown in Figure 4.5.1.16 to protect the noise barriers adjacent to traffic.

Rip Rap Road Bridge

Similar to Stage 2, the remaining bridge repairs on the outside portions of the Rip Rap Road overpass will be performed in this Stage as shown in see Figure 4.5.1.17. Rip Road Bridge will not require widening, but the existing bridge deck joints will be removed and the abutment backwalls will be reconstructed. Milling of the bridge decks will be performed to determine the amount of deck surface repairs that will be required. Concurrently, bridge deck surface repairs will be performed. The existing approach slabs will be demolished, and new buried approach slabs will be formed and poured, and all required substructure repairs will be made. Finally, the decks will be overlaid to create a new riding surface.

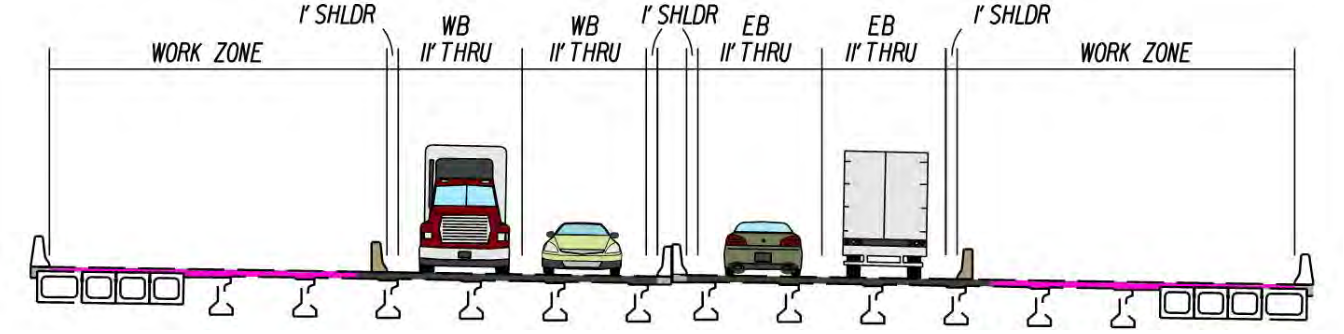


Figure 4.5.1.17 Stage 3 – Rip Rap Road Bridge Work Zones

King Street Bridge

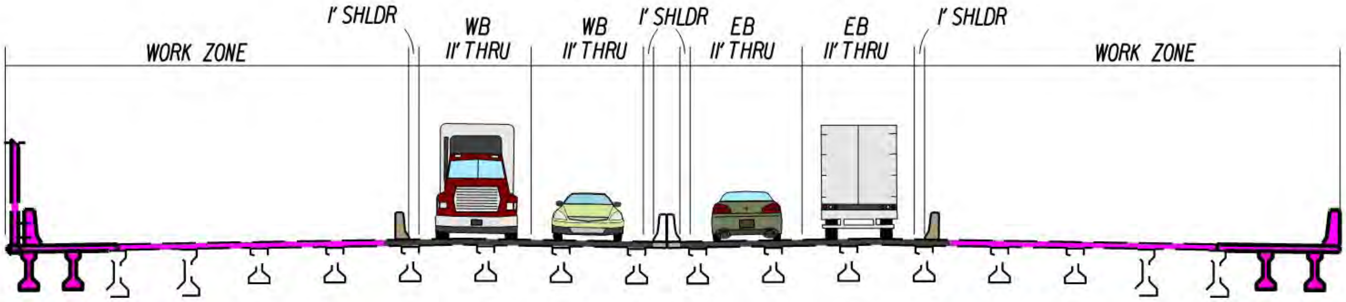


Figure 4.5.1.18 - Stage 3 King Street Bridge

In Stage 3, the King Street bridge will be widened to add one additional lane to I-64 EB and WB as shown in Figure 4.5.1.18. Two new piers will be added as well as widening of the existing abutments. Prior to structure excavation for the new piers, the Team will relocate the existing utilities in King Street.

For WB Pier 1, our Team discovered during preparation of our Technical Proposal that the existing Pier footing conflicts with the new Pier footing. Our unique design solution for the conflict, which provides an extension of the existing footing with a new pier column and cap is detailed in Section 4.3.2. One girder line will be added in each direction and the superstructure widened to tie into the existing deck. Finally, the remaining deck section will be milled, and the required hydro-demolition will be performed prior to installation of the latex modified overlays.

Stage 3 - Area 2
I-64 EB Bridge Over Hampton River

Following completion of the Stage 2, I-64 WB Bridge over Hampton River widening and repairs, all traffic crossovers are similar to those utilized in Stage 2 to shift to the newly widened WB bridge to start the Stage 3 work, as shown in Figure 4.5.1.19.

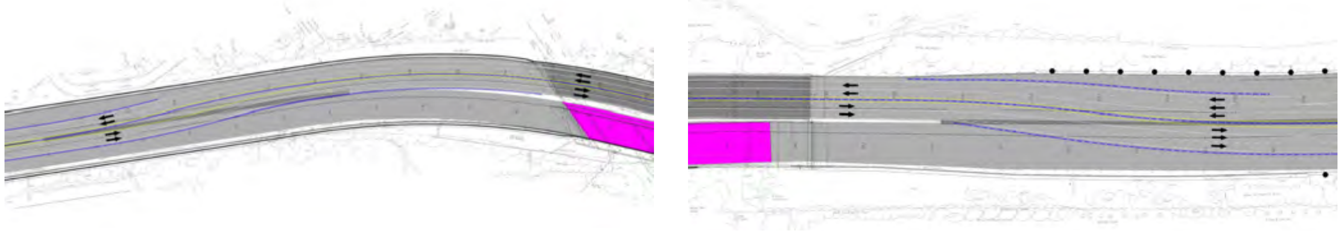


Figure 4.5.1.19 - Stage 3 Crossovers at HR Bridges (West Approach shown on Left, East Approach shown on Right)

Very confined work spaces exist on the south side of the bridge due to the overhead transmission line and a marina. Our Team evaluated several options for access which included a temporary access trestle in the middle between the bridge structures, temporary access trestle on the south side of the bridge, and an over-the-top temporary access trestle that straddles the EB bridges. As shown in Figure 4.5.1.20, access to demolish and reconstruct the I-64 EB Bridge over Hampton River will primarily use a marine-based operation within the footprint of the existing bridge to maintain a safe distance from the overhead transmission lines in combination with a small over-the-top trestle system in the shallow water area. The marine-based operations will operate from the Pembroke Avenue Bridge east to existing Bent 19. A small over-the-top trestle with be used from Bent 19 to Abutment B. The River Street Park section west of Pembroke Avenue will utilize land-based operations working primarily within the footprint of the bridge.

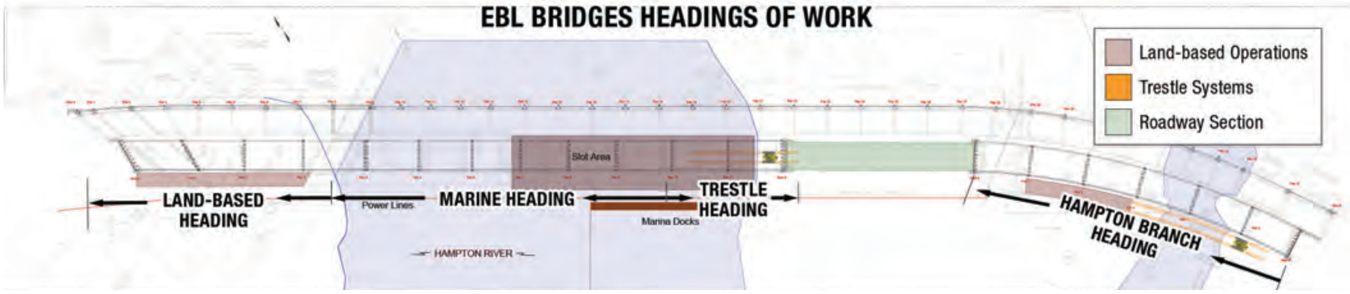


Figure 4.5.1.20 – EB Hampton River Bridge Headings of Work

The first step for demolition across the existing bridge is to clear out an area on the east end so that marine-based operations can operate between the existing WB bridge, the overhead transmission lines, and the marina docks as illustrated in Figure 4.5.1.21.

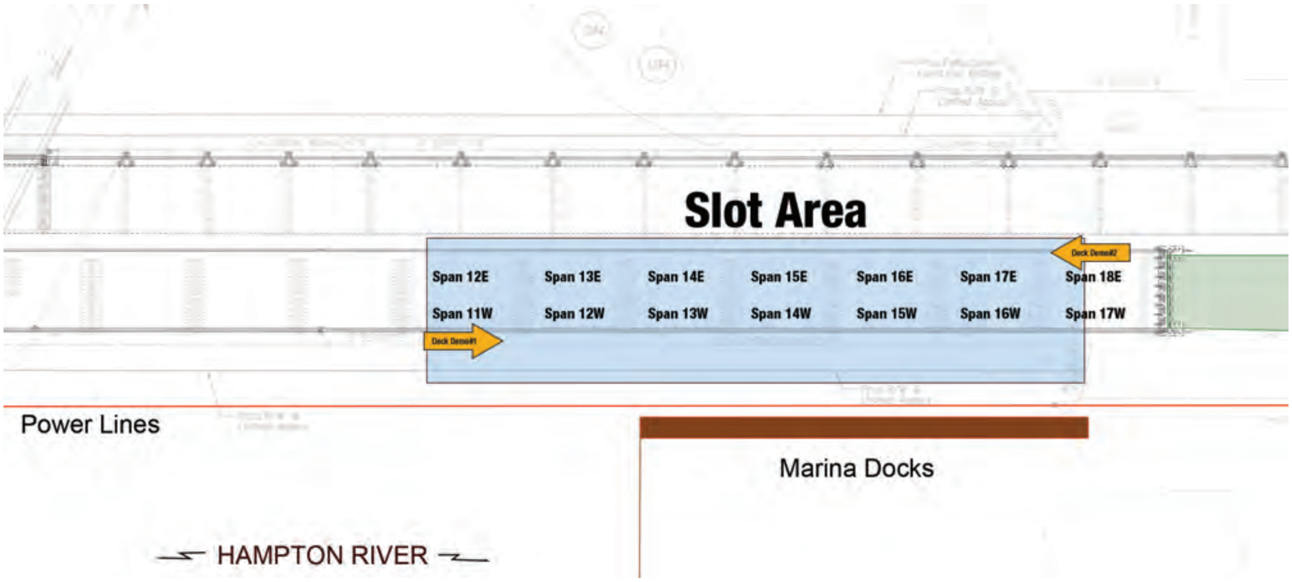


Figure 4.5.1.21 - EB Hampton River Bridge superstructure removal and slot for marine-based operation

The demolition of the superstructure will start at existing Span 11W and work east towards Abutment A. This work will be performed by a crawler crane sitting on a temporary platform supported by the existing bridge structure. The crane will progress its way down the north half of the bridge removing the south half deck sections. Once the south bridge sections are removed, the crane will work its way back west removing the north bridge deck sections. The superstructure will be wired sawed and cut into sections small enough for the crawler crane to safely handle and transported by tractor trailers to our designated disposal site in Chesapeake, VA. There the concrete deck sections will be processed into recycled concrete rubble and the steel beams and reinforcing steel will be salvaged as scrap steel. The Team will use best management practices to keep falling debris from our demolition operations out of the water by using barges and other catch mechanisms.

Once access to the slot area shown in figure 4.5.1.21 is opened up to marine-based equipment by removing the superstructure, the substructure demolition at existing bent 16 will start and work east to bent 19 within the footprint of the bridge. At the same time, the superstructure demolition will continue to proceed west for the remaining portion of the bridge. Another demolition crew will start installing the over-the-top temporary access trestle needed to access existing Bents 20 & 21 as shown Figure 4.5.1.22.

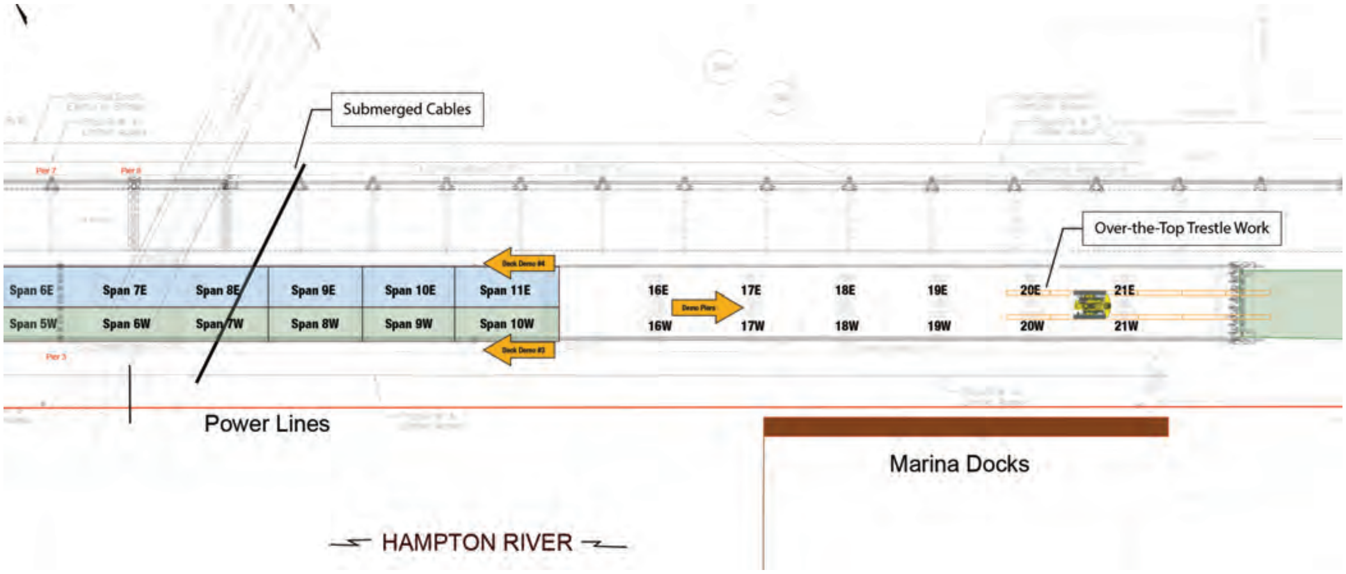


Figure 4.5.1.22 Temporary trestle location for access

Once the substructure has been removed to an elevation of two feet below the mudline within the slot area, the new bridge construction will start with the pile driving operations at Bent 9 and working back west towards Pembroke Avenue. Bents 10 & 11 will be constructed using the over-the-top temporary access trestle system simultaneously. Figure 4.5.1.23 depicts this sequence of work.

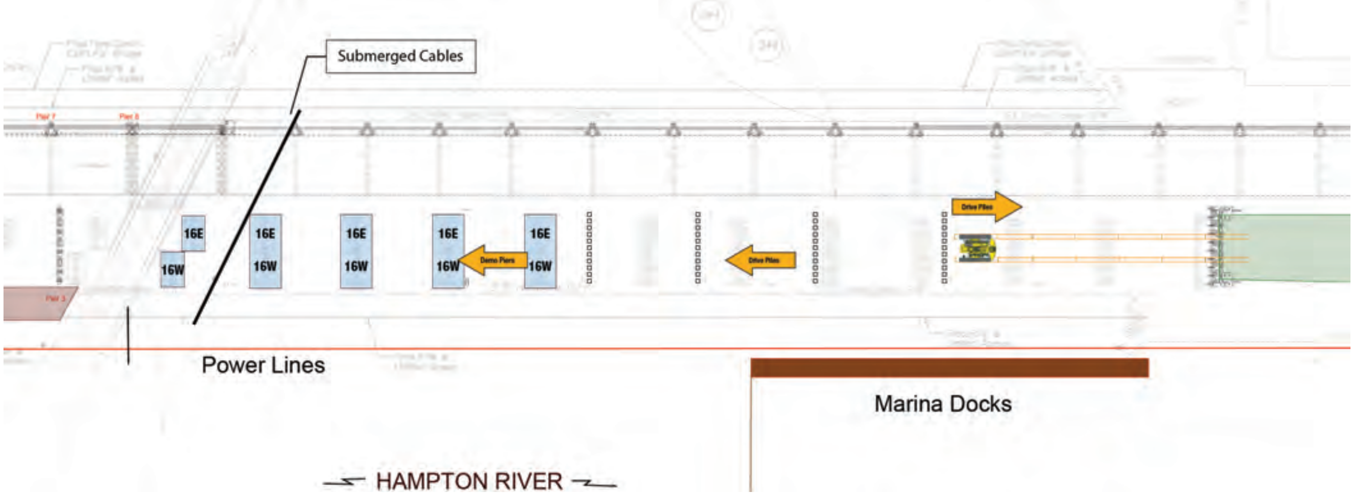


Figure 4.5.1.23 - Substructure demolition and pile driving sequence

The bridge construction will continue moving east to west towards Pembroke Avenue as shown in Figure 4.5.1.24. Once the demolition west of Pembroke Avenue is complete, a separate bridge construction heading will start in the River Street Park section and work east towards Pembroke Avenue. One critical construction activity that needs to be coordinated between the two headings is the erection of Span E over Pembroke Avenue. This work will be performed at night using temporary closures on Pembroke Avenue and an EB traffic lane closure on the existing WB bridge for delivery of the girders. Cranes positioned in River Street Park and on a barge in the Hampton River will work together to erect this span. Once Span E is erected, the adjacent spans on either side of Pembroke Avenue can be erected and the deck construction will continue west through those spans.

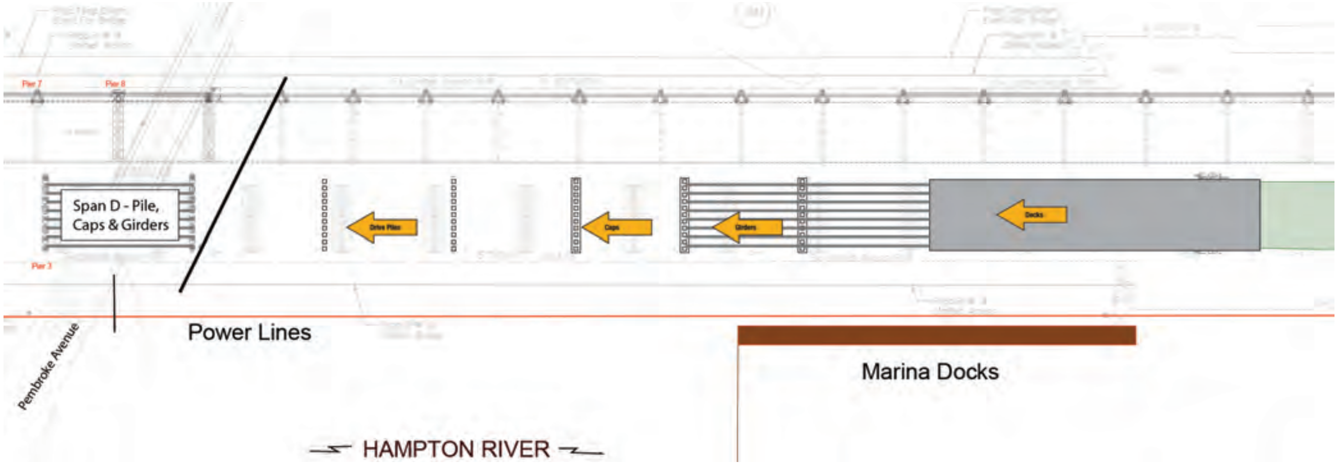


Figure 4.5.1.24 - Construction and Pembroke Ave span

I-64 EB Bridge Over East Branch

The demolition of the existing fracture critical bridge over the East Branch will start simultaneously with the EB Hampton River Bridge construction activities. Our Team has developed a demolition plan that will be designed by a professional engineer before demolition begins. The bridge will be removed starting at Abutment B and working west back towards Boxwood Avenue. The work in the Hampton Branch area will utilize a temporary access trestle. Once the demolition crews have completed their work on the trestle and moved to the landside approaching Boxwood Avenue, our bridge construction crews will move on to the trestle and start constructing the new bridge. The existing and the new Abutment A are located just west of overhead transmission line crossing. All work will be carefully coordinated with Dominion Power and demolition and construction will maintain a 15-foot clearance from the lines at all times. Cranes will be positioned on each side of the overhead line so that beams can be temporarily set on one end of the abutment and the other end on a bent cap falsework system. We will utilize a roller and jack system to launch the beams transversely into their final position.

Stage 3 - Area 2 Roadway

Following construction of Abutment B for the I-64 EB Bridge over Hampton River and Abutment A of the I-64 EB Bridge over East Branch, crews will construct the 450' long roadway plug between the two bridges. This roadway will be supported by retaining wall EB-05 on the inside median and by embankment fill on the outside. New drainage will be installed along with a new ground mounted noise barrier on the outside portion of the roadway. Following construction of bridge approach slabs and connection of the new lighting and ITS systems, the new pavement section will be installed.

Stage 3 - Area 3

Similar to Area 1, both EB and WB I-64 existing shoulders and portions of the existing mainline are demolished and reconstructed with the new pavement section as depicted in Figure 4.5.1.25. New retaining walls and noise barriers are also constructed in this Area.

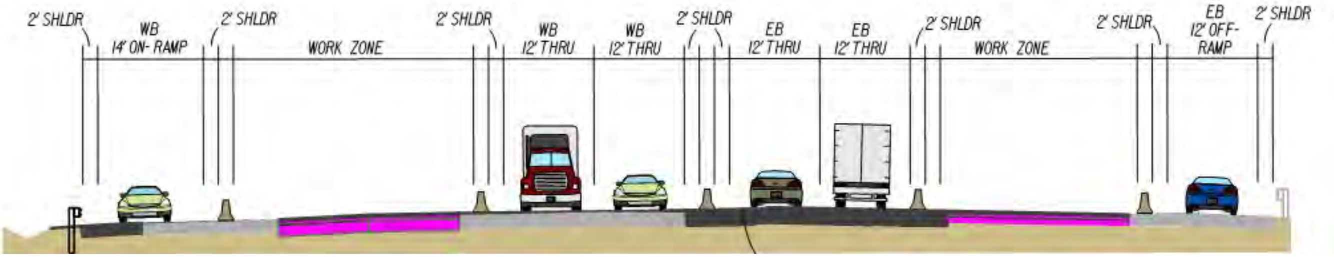


Figure 4.5.1.25 - Stage 3 Area 3 (Station758+00) Outside Widening at Settlers Landing Road Interchange Ramps

Settlers Landing Road Bridge

In Stage 3, the outside portion of the Settlers Landing Road bridges will undergo the same repair procedures as described for the Area 1 bridges and the westbound bridge will be widened to add an additional lane as shown in Figure 4.5.1.26. Three new piers will be added as well as the widening of the two abutments. All new substructure will be founded on drilled shafts or micropiles per the RFP requirements.

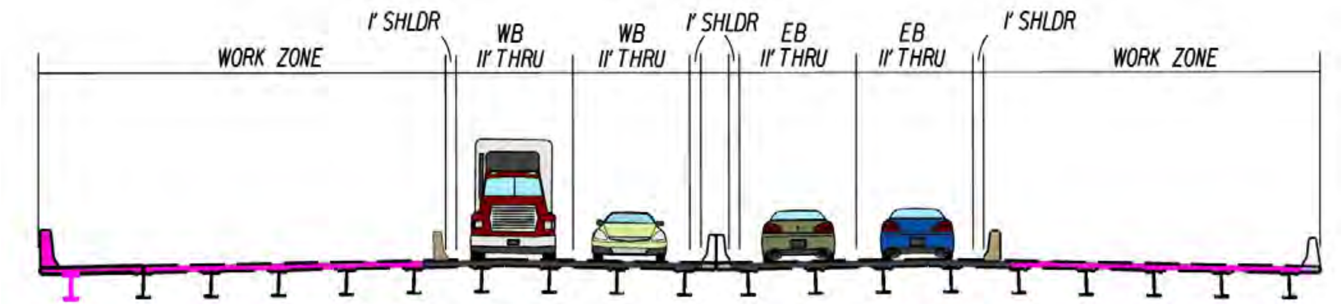


Figure 4.5.1.26 – Stage 3 Settlers Landing Road Bridge

Stage 3 – ITS/Tolling/Lighting/Signing

ITS/Tolling

Early in Stage 3 (Work Areas 1 and 3), the communications backbone conduits and junction boxes will be installed in conjunction with the embankment and retaining wall construction. ITS cabinets and associated branch conduit will be installed as soon as embankment platform areas have been established. For Work Area 2, the backbone conduits will be installed underneath the WB Hampton River bridge widened section. With the planned early procurement and delivery of materials accomplished during Stages 1 and 2, we anticipate installation of the ITS devices, toll gantry, and tolling equipment to proceed as soon as specific site areas have been prepared. Pulling of the backbone fiber will occur concurrent with the ITS and tolling installations, such that devices will be ready for testing well before the required completion milestones. All tests will be accomplished per our accepted Testing and Integration Program and will include, among the other requirements of the RFP, field acceptance tests, Traffic Operations Center (TOC) integration tests, and systems acceptance tests.

Our Team will provide VDOT the required window for Tolling System Integration (TSI) starting on May 1, 2026 coinciding with the completion of the work required to achieve the Interim Milestone. ***This date is 61 days earlier than the RFP Interim Milestone Date and provides TSI staff over 8 months of access to the construction zone and the competed overhead sign structures, cabinet foundation, and other civil infrastructure installed that support the tolling system equipment.***

Signing/Lighting

As with the communications backbone, electrical trunk line conduits and junction boxes will be installed with the embankment and retaining wall construction in Work Areas 1 and 3, and installed underneath the WB bridge widened section in Work Area 2. Overhead sign structures, light poles, and luminaires are also planned for early procurement and delivery during Stages 1 and 2 allowing for immediate installation as soon as specific site areas have been prepared. Pulling of the electrical lines through the trunk line conduits will occur concurrent with the signing and lighting installations. As shown in our schedule, hanging of sign panels and lighting burn-in periods are scheduled to be completed well in advance of the completion milestones.

Stage 4 Interim Milestone and Final Surface Paving and Pavement Markings

As the Stage 3 work completes including roadwork, noise barriers, and installation of signage, lighting, and ITS systems, all MOT devices can be removed and traffic placed in final configuration with the exception of opening the new Express Lanes. The following list summarizes the plan for opening the roadway in each Area in coordination with the final activities and required Milestones for the Project:

- **Area 1** - Final milling, overlay, and surface pavement for both EB and WB can begin in the Fall of 2025 with the bulk of finish paving completed by the Spring of 2026. With the I-64 EB Bridge over Hampton River still under construction until mid-September 2026, traffic in Area 1 that occupies the EB crossover will remain on intermediate asphalt until the EB Bridge opens and the temporary crossovers are removed. Figure 4.5.1.27 depicts the final traffic configuration of Area 1 at approximately Station 708+00 where flex post delineators will be installed on EB lanes and Group II Drums will be left in place at weave/entry areas on WB to block entry to the new Express Lanes.

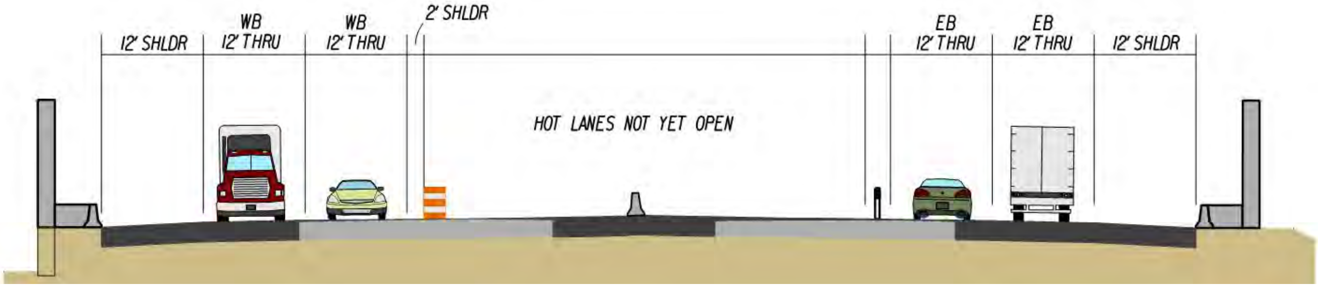


Figure 4.5.1.27 - Stage 4 Area 1 Final Configuration

- **Area 2** - Final pavement in Area 2 consists only of the 450' along EB lanes between the I-64 EB Bridge over Hampton River and the I-64 EB Bridge over East Branch. This work will be completed in Fall 2026 prior to the new bridges open to traffic.

- **Area 3** - Area 3 final paving will be completed in two mobilizations in order to satisfy the Interim Milestone requirements of the contract.
    - **Interim Milestone Overlap Area (East of I-64 Bridges over Settlers Landing Road)** - Final milling, overlay, and surface pavement for both EB and WB in this Area can begin in the Fall of 2025 with the completion of the final pavement surface by the Spring of 2026. With the completion of pavement and an allowance in our schedule of 5 weeks of punchlist/closeout activities, the Interim Milestone Work will deliver all lanes of I-64 EB and WB to the east of the I-64 Bridge over Settlers Landing Road open to traffic for safe and unrestricted use of the roadway. This includes all directional and regulatory signage including installation of flex post delineators to prevent motorists entering into the Express Lanes, permanent lane markings, removal of all temporary barriers and traffic control, and resolution of any non-compliance items for the Interim Milestone Work. ***Our Team will deliver the Interim Milestone by May 1, 2026, 61 days earlier than required by the RFP***. Figure 4.5.1.28 depicts the final traffic configuration in the Interim Milestone Area where flex post delineators will be installed on EB lanes and Group II Drums will be left in place at weave/entry areas on WB to block entry to the new Express Lanes.

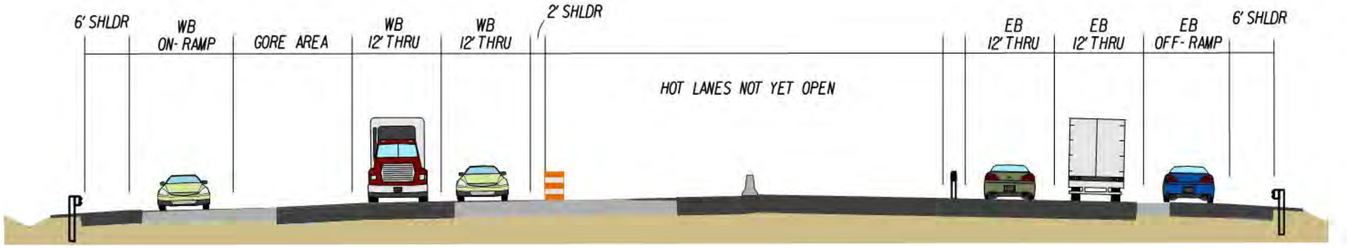


Figure 4.5.1.28 - Area 3 Final Configuration

- **Balance of Area 3 (East of the I-64 Bridge over East Branch to Settlers Landing Road)** Final pavement surface for both EB and WB will completed in this area in conjunction with the completion of the I-64 EB Bridges over Hampton River and East Branch as well as Area 2 paving described above. Completion of Area 2 and Area 3 final paving will occur in Fall 2026 with ***all new lanes open to traffic by the holiday season in late 2026***.

Safety and Operations

It is our Team's number one goal to ensure the safety of the traveling public and the workers on the Project. We fully support VDOT's commitment to safety of the public, safety of its employees, and safety of all Project stakeholders, and we plan to align our Team's vision of safety on the Project with VDOT. We expect each and every individual to be involved, empowered, and accountable for Project safety. Our safety program will be led by our Safety Manager who will implement a Project Specific Safety Program. Our Team's approach to safety is focused on both construction safety and traffic safety.

Construction Safety

Each stage of the Project will have distinct safety challenges. We will work closely with our partners to finalize a design that incorporates and considers safety elements and fully integrates anticipated construction processes and staging requirements. This includes such items as the thoughtful location of temporary traffic barrier and access points for work areas that allows for the safe ingress and egress of construction vehicles, and sequencing of the bridge construction to minimize live traffic immediately adjacent to construction activities.

Traffic Safety

Our Team's TMP, TTC design, and Construction Sequencing have been developed to provide the safest work zones while attaining the peak operational capacity of the roadway. Following traffic counts at the onset of design, plans will be further developed to allow the maximum flow of traffic through the corridor. As detailed in Section 4.5.2, enhanced safety strategies exceeding VDOT requirements will also be utilized to maximize safety, such as avoidance of major traffic shifts and the associated nighttime lane closures required to implement them. During construction, the VDOT Work Zone Safety Checklist will serve as the minimum standard to assure conformance with the Project's safety requirements, and checks will be performed daily.

To support this approach, we have a qualified team member identified for the role of Contractor Incident Manager Coordinator (CIMC) who will lead all Team members in their responsibilities for incident response. This will facilitate our ability to quickly perform potential maintenance work and, if necessary, identify corrective action or enhancements that may mitigate repeat incidents. From our experience working in the I-64 corridor, we have developed strong working relationships with VDOT Incident Management and first responders which have expedited communication and response times. This was evidenced following a major traffic incident at the I-64 Capacity Improvements Segment III Project in December 2019 where several of our Team members provided logistical support during accident cleanup.

Staging and Storage Areas

The locations of our proposed staging and storage areas are critical to the success of the construction operations. Key related issues that will be addressed specifically in our mobilization plan include:

- Safety of the traveling public as well as security for residents and employees;
- Safe ingress and egress for construction vehicles, workers, and equipment to and from work zones;
- Proximity to the work areas for access and operational efficiency;
- Adequate size for the quantity of material, equipment and supplies needed on site; and
- Appropriate environmental controls required for equipment and material storage.

As an example, staging and storage areas for materials for the Hampton River Bridges include a proposed laydown area off of Boxwood Avenue for short term storage, barges on the water for the EB bridge, McLean's regional construction yard for long term storage, and the fabricator's yard for precast concrete piles and girders. The offsite materials will be shipped via truck or barge depending on work location.

4.5.2 Transportation Management Plan

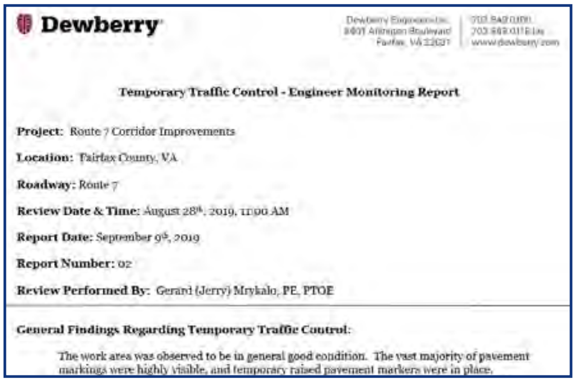
Our Team is dedicated to delivering this Project in a way that exceeds expectations regarding the minimization of public impacts during construction. All aspects of our Transportation Management Plan (TMP) and Temporary Traffic Control (TTC) plans will be developed with a focus on maximizing safety for the traveling public and construction personnel while minimizing travel delays and access impacts throughout all stages of construction. To accomplish these safety, mobility, and communication goals, highlights of our approach include:

- Analyzing existing safety concerns and mitigating them prior to major construction activities;
- Monitoring of work zone conditions throughout construction by our Lead Traffic Engineer;
- Analyzing and adjusting temporary lane closure hours to further reduce public impacts;
- Providing a full 9 foot or wider shoulder throughout both major Stages of construction in Areas 1 and 3; and,
- Utilizing enhanced safety devices and strategies that exceed minimum requirements.

Traffic Management Task Force & TMP Philosophy

Our Team is committed to reducing the Project's anticipated impacts to the traveling public and exceeding the safety requirements of the RFP. Immediately following NTP, our Team will establish a multi-discipline Traffic Management Task Force (TMTF) that is focused on planning and developing the TMP, and designing, and implementing the Project's work zone traffic control program. The TMTF will consist of contractors, engineers, and our safety team. Additionally, VDOT and third-party stakeholders will be invited to participate. Establishing and maintaining this task force facilitates construction collaboration that ultimately ensures safety, mobility, and constructability are optimized. To ensure coordination with the adjacent HRBT Project, the TMTF will act as a liaison between their design and construction teams, VDOT, and applicable third parties from the initial onset of TMP development. Coordination will focus on providing seamless transitions between projects and MOT operations so that the safety, mobility, construction sequencing, and design features are fully integrated.

Our TMP will place a particularly heavy emphasis on eliminating the need for temporary lane closures to the largest extent possible, as we thoroughly understand the impact that lane closures can have on the traveling public, residents, and local businesses. To meet our high safety and mobility standards, the TMP and TTC plan development will be led by our Lead Traffic Engineer, who is a Professional Traffic Operations Engineer (PTOE) providing expertise in traffic control device design to ensure mobility and safety are maximized during and after construction. Furthermore, our Team commits to additional field reviews by our traffic engineering staff during construction. These regular reviews will verify that traffic controls have been implemented correctly and will provide recommendations for further enhancements. This enhancement is in addition to the Work Zone Safety Inspections completed by our TMTF and QA and QC Team. An example of these traffic engineer reviews can be seen in Figure 4.5.2.1.



Dewberry

Temporary Traffic Control - Engineer Monitoring Report

Project: Route 7 Corridor Improvements

Location: Fairfax County, VA

Roadway: Route 7

Review Date & Time: August 28th, 2019, 11:00 AM

Report Date: September 9th, 2019

Report Number: 02

Review Performed By: Gerard (Jerry) Mrykalo, PE, PTOE

General Findings Regarding Temporary Traffic Control:

The work area was observed to be in general good condition. The vast majority of pavement markings were highly visible, and temporary raised pavement markers were in place.

Figure 4.5.2.1 Example TTC Engineering Report

Sequence of Construction/Phasing

As detailed in Section 4.5.1, construction will be accomplished in four stages with Stage 2 and Stage 3 being major stages. These stages maximize public safety, minimize public impacts, and allow for the timely completion of the Project. In addition, the sequence maintains continuous interchange access and existing acceleration/deceleration lanes at all times during construction. This detailed and up-front planning provides our Team with the confidence that the Project will be delivered on-time in a safe manner with limited public impacts. For each of the stages of construction, we have developed specific temporary traffic control strategies as highlighted in Exhibits 4.5.1.2, 4.5.1.3, and 4.5.1.4 in Section 4.5.1. These Exhibits contain a typical section for each Stage of construction and explain the specific features, challenges, and solutions of each Area. We carefully studied numerous options when developing this staging, resulting in a plan that minimized the need for temporary lane closures and maximizes mobility.

One important feature of our Team's Sequence of Construction is committing to providing a full 9' or wider shoulder during both major Stages on the same side of I-64 as the active work zone in Areas 1 and 3. Providing this full shoulder has tremendous safety and operational benefits related to crash avoidance, vehicle refuge, and incident management. Locating this full shoulder on the same side as the work zone allows for construction vehicles to utilize this shoulder for acceleration and deceleration into the work zones as opposed to the active travel lanes, reducing the likelihood of rear-end crashes and reducing the frequency of temporary lane closures.

Our Team has also evaluated the need for shoulder strengthening in areas where traffic will need to be shifted onto the outside shoulder to facilitate bridge widening and reconstruction and the bridge deck overlays. Reviewing the existing pavement core and soil data, we have concluded that most of the existing outside shoulders do not have the required structural number or strength to accommodate traffic, and therefore we commit to shoulder strengthening as an early construction stage activity to provide reliability that the existing shoulder pavement will not fail during construction.

Traffic Control Details

In addition to the sequence of construction and TTC typical sections shown in Exhibits 4.5.1.2, 4.5.1.3, and 4.5.1.4, our Team has developed a TTC strategy that minimizes impacts to the traveling public. Upon Award, we will begin the design of the Type C, Category V TMP and will develop site-specific TTC plans for each stage of construction. The TTC plans will detail all controls required for construction, such as work areas, temporary barrier, attenuators, channelizing devices, signs, PCMS, temporary markings, temporary drainage elements, construction access points, and all other requirements per VDOT's *I&IM-241/TE-351*, the *Virginia Work Area Protection Manual*, and the *Manual on Uniform Traffic Control Devices* (MUTCD). Our Team recognizes common shortfalls with TTC in work zones, and we are committed to avoiding these conditions with carefully designed site-specific TTC plans. For example, we will ensure that barrier ends and impact attenuators are flared as far away from traffic as possible to reduce the likelihood of a high severity crash into an attenuator.

Lane Closures, Detours, Restrictions, Flagging, and Lane Widths

Technical highlights of our Proposal include:

I-64 and Surrounding Roadways

- Long-term lane closures on I-64 will be limited to the closure of one lane in each direction as permitted by the RFP;
- No long-term road closures with detours;
- River Street, Pembroke Avenue, and Boxwood Street will be maintained as two lanes, exceeding the requirements of the RFP which states one lane may be maintained;
- Rip Rap Road, King Street, and Settlers Landing Road will be maintained as one through lane in each direction;
- Short-term directional closures on Rip Rap Road, King Street, River Street, Pembroke Avenue, Boxwood Street, and Settlers Landing Road for overhead bridge work or unloading/loading equipment will be limited to 20 minutes or less between 12:00AM and 4:00AM;
- Lane and road closure restrictions will follow Part 2, Section 2.10.3 of the RFP. Temporary lane closures are anticipated for activities such as paving, shoulder improvements, placement of traffic barriers, and delivery of materials;
- Temporary 20 minute maximum full stoppages on I-64 will only be implemented for activities that mandate stoppages, such as overhead signal and sign work;
- On the arterial roadways within the Project limits, minimum 11’ wide lanes will be maintained where work is within limits open to traffic; and
- Temporary lane shifts will be designed to meet full posted speed limit, exceeding the requirements of the RFP.

Public Safety Considerations and Limiting Disruptions to Traffic

In addition to the minimum requirements of the RFP, specific attention has been given to the unique challenges of the Project, with focus on mitigation and communication strategies that maximize safety, minimize public impacts, and minimize schedule risk. By carefully studying these elements, our Team has identified the following challenges and devised unique solutions to address each:

Site-Specific Enhanced Safety and Mobility Measures

A preliminary investigation completed by our Team found that there have been 576 total crashes within the Project limits within the past five years, translating to a higher crash rate than the statewide average. Given this understanding, our Team commits to the following crash avoidance and incident management techniques:

Forgiving Geometry and Enhanced Safety Devices

Crash avoidance through targeted safety enhancements are one of the best ways to reduce the number of incidents. We have proactively studied the existing crash trends. We commit to the utilization of the following enhanced safety devices that include:


Figure 4.5.2.2 – Raised Pavement Markers

- Full continuous temporary raised pavement markers with installation of all temporary markings, as shown in Figure 4.5.2.2 for increased lane visibility especially at night and during wet pavement conditions (only required at lane shifts per the *Work Area Protection Manual*);
- Use of wider than required lane lines for increased delineation of lane shifts; and
- Use of full “L” length for lane shifts (not ¾ L as allowed) to provide forgiving geometry and reduce potential side-swipe and run-off-road crashes.

Lane Closure Optimization

The lane closure restriction times listed in Part 2 Section 2.10.3 of the RFP will be followed. However, we recognize that the impacts of closing a single lane on I-64 is a major impact to traffic operations and have ripple effects on traffic on the City of Hampton streets. To ensure temporary lane closures are limited to the hours of least impact, we will collect current traffic volumes and analyze potential MOT operations using software such as Quick Zone and HCS. This strategy will also account for seasonal variations in traffic volumes such as the summer beach traffic season. As shown in Figure 4.5.2.3, we are well versed in this exact type of analysis, which we recently performed along I-64 as part of the I-64 Capacity Improvements Segment I and Segment III projects. Utilizing this type of analysis also gives us the ability to schedule short construction duration work during low-volume hours where feasible, providing a benefit that exceeds the RFP requirements.

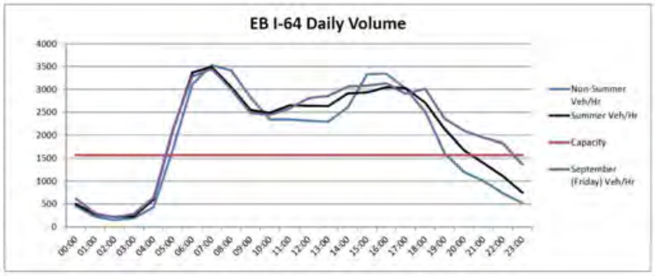


Figure 4.5.2.3 Lane Closure Optimization

Incident Management and Detection

With an already congested corridor, we understand the critical importance of quickly detecting and clearing incidents from the travel lanes. As shown in our Organizational Chart, we are committing a Incident Management Team, led by CIMC. Our Team will develop a comprehensive Incident Management Plan (IMP) focusing on proactive measures to rapidly detect, respond to, and clear incidents and coordinating with VDOT, EMS, and stakeholders. We envision using the IMP to leverage existing VDOT assets such as CCTV cameras and Safety Service Patrol (SSP) and supplemented by Project specific features such as wrecker service.

Mobility Management

Figure 4.5.2.4 highlights the chronic congestion within the corridor, especially along EB I-64 approaching the HRBT. With the Project's planned long-term lane closures, impacts are likely to increase. As part of the development of our TMP and TTC plans, we will focus on limiting the frequency and duration of temporary lane closures along EB I-64 to avoid traffic backups extending to the I-64/I-664 interchange. During heavy congestion periods, EB interstate traffic exits I-64, cuts through the City of Hampton, and re-enters I-64 at Settlers Landing Road or Mallory Street. During construction it is possible that this cut through traffic may increase, further impacting the community and Hampton University. To mitigate this, we commit to working with the City of Hampton to coordinate our planned lane closures on I-64 and cross streets to allow the City to optimize and re-time signals and develop strategies to limit cut-through traffic.

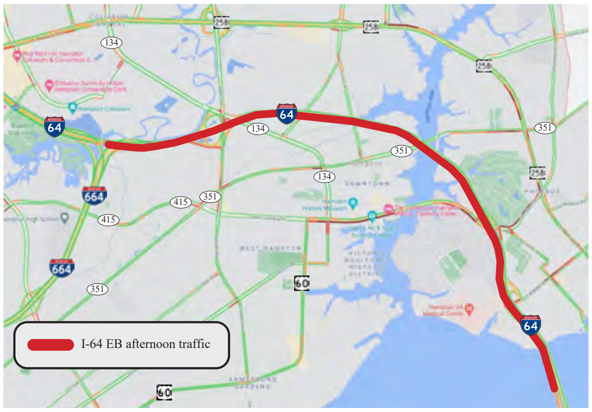


Figure 4.5.2.4 Typical I-64 EB Afternoon Congestion

Stakeholder Communication and Mitigation Strategies

The high traffic volumes during peak periods of travel combined with the peak summer season and numerous residential communities, businesses, and adjacent projects on I-64 highlight the need for enhanced public communications during construction. For through traffic, notification of work zone traffic conditions, including lane restrictions and new travel patterns, is critical to maximize safety. For local traffic utilizing intersecting streets and roadways, thorough advance communication for access and lane shifts or changes to access points is essential. We commit to providing a Public Relations Manager to develop and manage the Public Information and Communications Plan (PICP). She will meet with VDOT Communications Staff to coordinate communication efforts in accordance with Section 2.11.1 and 2.11.2 of Part 2 of the RFP. Our Team will participate in weekly communication coordination meetings with the Corridor Wide Transportation Management communication team, starting immediately after Notice to Proceed, continuing through the design and construction phases in accordance with the RFP.

Our Team recognizes that proactive communication with all stakeholders is essential to a successful TMP. As with any large-scale transportation improvement project, some inconvenience is unavoidable, but our Team's goal is to minimize these impacts. VDOT has already engaged in a public involvement process by hosting a Public Hearing for the Project. Our Team commits to continuing the robust public involvement that VDOT has started during final design, ROW acquisition, and all construction phases of the Project. As detailed in Table 13, we have identified the Project's stakeholders, determined how they will be impacted, and devised targeted communication and mitigation strategies to reduce these impacts.

Table 13 - Stakeholder Communication and Mitigation Strategies

Stakeholders	Impacts	Communication/Mitigation Strategies
Traveling Public and Local Residents	Potential travel time delays for temporary operations. Potential safety impacts.	▪ Conduct "Pardon Our Dust" meetings for the general public, public safety officials, and other stakeholders throughout design and construction. ▪ Conduct 3 public information meetings as approved by VDOT for the general public, public safety officials, and other stakeholders throughout design and construction. ▪ PCMS devices will be utilized for public notices in accordance with Section 2.10.7 of Part 2 of the RFP. ▪ Robust public outreach campaign in accordance with Section 2.11 of Part 2 of the RFP.
City of Hampton, HRTAC, FHWA, FEMA, USACE, DEQ, Railroads (CSX)	Project reviews and comments. Coordination with adjacent projects.	▪ Coordinate reviews and address all comments by the City of Hampton when directed by VDOT. ▪ Operate as a liaison between VDOT and the City of Hampton to ensure compliance with local ordinances. ▪ Operate as a liaison between VDOT and HRTAC, FHWA, FEMA, USACE, DEQ, and CSX as necessary.
Local Businesses, Community Representatives, and the Media	Potential access confusion during construction and after completion of the Project.	▪ Access to all stakeholder properties maintained at all times per requirement of the RFP. ▪ PCMS devices will be utilized for public notices. ▪ Direct coordination with local businesses, community representatives, and corresponding media outlets. ▪ Host community meetings 1 month prior to construction start and 1 month prior to construction end, as well as quarterly meetings with impacted business groups in accordance with Section 2.11.2 of Part 2 of the RFP. ▪ Organize and host a Community Open House at River Street Park or a suitable nearby location to provide an opportunity for the public to meet the construction team, learn about the Project, and provide interactive activities for children. ▪ Complete a community service project timed with the re-opening of River Street Park.
Hampton University and Local Schools	Potential delays to school buses/ transportation services.	▪ Coordination of construction activities directly with Hampton University and local school staff. ▪ Avoid lane closures during school bus operating hours when possible or major Hampton University events. ▪ Advance notification of traffic pattern changes to Hampton University and local School Transportation Staff.

Stakeholders	Impacts	Communication/Mitigation Strategies
Parks and Recreation Facilities	Potential impacts to access.	▪ Coordination of construction activities directly with City of Hampton Parks and Recreation. ▪ Maintain access to applicable parks and recreation facilities.
Coast Guard, Commercial River Traffic, Recreational Boaters	Potential impacts to passage.	▪ Operate as a liaison between VDOT and the Coast Guard to ensure compliance with local ordinances. ▪ Maintain passage for boat users of the Hampton River, except for the limited activities listed in Section 2.10.8 Part 2 of the RFP. ▪ TTC plans will take into account signs needed to direct boat traffic in the Hampton River.
Police, Fire & Rescue	Potential response time impact.	▪ 9' shoulders provided for incident management, police enforcement, and quicker response to incidents. ▪ Advance notification of temporary lane restrictions and changes to traffic patterns. ▪ Representatives will be notified of approved lane closure requests. ▪ Pre-switch emergency responder meetings for response planning.
HRBT Expansion Project and other Adjacent Projects: • *I-64 Segments 4A/4B* • *I-64 HREL Segment 1A* • *North King Street Corridor Improvements – Section 4 (City of Hampton)* • *Hampton Trunk Sewer Extension Divisions I and J Relocation* • *City of Hampton pavement maintenance contracts*	Possible conflicting construction operations	▪ Utilization of a liaison to coordinate construction activities to avoid conflicts. ▪ Seamless coordination with construction activities that span multiple projects so that it satisfies both projects at one time. ▪ Monthly coordination meetings with other Contractors or as requested by VDOT. ▪ Prioritizing scheduling activities for existing projects that have been awarded and emergency maintenance projects in accordance with Section 1.7 of Part 2 of the RFP.

4.6 - Proposal Schedule

4.6 Proposal Schedule

4.6.1 Proposal Schedule

The Shirley Team's Proposal Schedule is provided in our Volume II - Design Concept.

4.6.2 Proposal Schedule Narrative

Our Team has reviewed the Project and schedule requirements of the Request for Proposals (RFP) in detail and developed a Proposal Schedule outlining our plan to successfully manage the complete scope of work. This schedule has been optimized to deliver the Project in the shortest duration possible while meeting RFP requirements, minimizing impacts to stakeholders, protecting the environment, and ensuring the safety of workers and the public. Activity durations are derived from estimated quantities and combined with anticipated productions based on our experience and historical data on similar projects, with consideration for site specific conditions.

Schedule Milestones

Project milestones have been established to easily monitor progress through the design and construction phases. As an enhanced benefit to VDOT and the traveling public, our Proposal Schedule introduces a ***Unique Milestone to open all lanes of traffic to their final configuration by November 15, 2026***, prior to the 2026 holiday season. Further, our Proposal Schedule provides an ***Interim Milestone Completion date of May 1, 2026, 61 days ahead of the RFP specified date,*** allowing increased Tolling System Integration and coordination with the adjacent HRBT Project. Final Completion will be by December 30, 2026. A summary of our contract and schedule milestones are shown in Table 14.

Table 14 - Contract and Schedule Milestones

Contract and Schedule Milestones	Date
Notice of Intent to Award	June 24, 2022
CTB Approval / Notice to Award	July 20, 2022
Design-Build Contract Execution	July 27, 2022
Notice to Proceed (NTP)	August 01, 2022
Interim Milestone	***May 1, 2026 (61 days early)***
Unique Milestone – All Lanes Open to Traffic	***November 15, 2026***
Final Completion	***December 30, 2026***

Construction Key Dates	Date
Switch Traffic to Stage 2 Configuration -All areas	August 15, 2023
Switch Traffic to Stage 3 Configuration-Area 1	July 31, 2024
Switch Traffic to Stage 3 Configuration-Area 3	October 07, 2024
Switch Traffic to Stage 3 Configuration-Area 2	April 17, 2025
Switch Traffic to Stage 4 Configuration- Interim MilestoneArea	August 21, 2025
Switch Traffic to Stage 4 Configuration-Area 1	October 13, 2025
Switch Traffic to Stage 4 Configuration -Area 2	September 18, 2026
Switch Traffic to Stage 4 Configuration -Area 3 Remainder	September 28, 2026

Schedule Calendars

The following is a description of the calendars used for this Project.

5 HOL "5 Day Workweek with Holidays": Allows work five days per week except on standard holidays and is used for all design and administrative activities in the CPM network.

5 HOL_WTH "5 Day Holidays with Normal Anticipated Weather": This calendar is used for most roadway and structures construction activities. It includes holidays as inserted in the '5 HOL' calendar as well as non-work days for the anticipated normal weather in the region.

HR_BRIDGES-5HOL_WTH: "5 Day Holidays with Normal Anticipated Weather": This calendar is used for WB and EB Bridges over Hampton River and East Branch construction activities.

5 HOL WTH_ASPHALT "Winter Shutdown Calendar": Assigned to activities that are anticipated to be affected by winter weather, mainly in Stage 4, such as asphalt surface paving and pavement markings. This calendar contains no working days from November 15 one year to March 15 of the next year.

7 DAY "7 Day No Holidays: Allows works seven days per week on activities that progress on a calendar-day basis such as design and construction submittal review, cure activities, ITS testing, and Toll System Integration.

5 HOL_LANDSCAPE "Landscaping Calendar": Assigned to activities related to planting which shall be installed between October 15 and March 15.

Work Breakdown Structure

Our Team has developed a detailed Proposal Schedule in accordance with the RFP requirements. The Team has organized the schedule into a hierarchical Work Breakdown Structure (WBS) in order to demonstrate the relationships and activity durations amongst the milestones, scope validation period, design, public involvement, environmental permitting, ROW acquisition, utility relocation, construction, and project management disciplines. All elements of the design-build process are captured under these Level 1 tasks and are described below:

A. ***Schedule Milestones:*** Area reserved for snapshot review of the Project status. This contains major milestones that are critical to the Project or prescriptive in the RFP. This section also includes the Scope Validation Period and Construction Key Dates.

B. ***Design Phase:*** Includes preliminary engineering services, plan development, QA/QC reviews, submittal milestones, and interim and final reviews and approvals of plans by VDOT and other regulatory agencies. This section of the schedule includes a second level WBS structure to group design activities by type of design submission classifying it by Preliminary Design and Final Design. Preliminary design consists of Early MOT Design plan, survey and mapping, geotechnical investigations & reporting, and utilities designations and test pits.

C. ***Public Involvement:*** This section of the schedule allows for coordination, public involvement meetings and updates with the stakeholders.

D. ***Environmental Permitting:*** Includes ESA reports, permit management and preparation, and permit submissions, reviews, and approvals. Initial efforts will focus on the LD 455/ VPDES Permit, SWPPP, and United States Coast Guard (USCG) permit submissions needed for the start of construction. This section also includes threatened and endangered species coordination and noise analysis.

E. ***Right-of-Way Acquisition:*** This section of the schedule is used to monitor the acquisition of right-of-way and easements, appraisals and appraisal reviews, offers, negotiations, and certificates. To prioritize groups of properties by order of need, we have included a second level WBS structure that includes separate right-of-way acquisition activities by priority. Dividing the right-of-way activities into groups will enable our Team to focus our right-of-way acquisition efforts on the most schedule critical acquisitions and track these critical acquisitions to ensure on-time completion.

F. ***Utility Relocations:*** The Utility Relocation section of the schedule starts with coordination with utility owners and includes activities for UFI meetings, preparation of preliminary engineering (PE) estimates, approval of PE estimates, approval of the utility relocation design, and the utility relocation activities.

G. ***Construction:*** This section includes all components of roadway, bridge, retaining wall, noise barrier, and drainage construction. The Construction section of the schedule is segmented by levels of WBS structure to divide the construction activities by Areas and Stages to show the interfaces and easily track to meet milestones and ensure on-time completion. This section also includes Procurement, Submittals and Fabrication Activities, and Construction Quality Assurance and Control Processes.

Table 15 is a complete outline of the WBS Structure for the Project.

Table 15 - WBS Structure

WBS Path	WBS Name
C00117841DB111.A	**SCHEDULE MILESTONES**
C00117841DB111.A.1	Construction Key Dates
C00117841DB111.A.2	Toll System Integration
C00117841DB111.B	**DESIGN PHASE**
C00117841DB111.B.A	Preliminary Design
C00117841DB111.B.A.1	Early Start / MOT Plans (Stage 1)
C00117841DB111.B.A.2	Design QA/QC Plan
C00117841DB111.B.A.3	Survey and Mapping
C00117841DB111.B.A.4	Geotechnical investigations and Reports
C00117841DB111.B.A.4.1	Roadway
C00117841DB111.B.A.4.2	Bridges
C00117841DB111.B.A.4.3	Noise Barriers
C00117841DB111.B.A.5	Utility Designations and Test-Pits
C00117841DB111.B.B	Final Design
C00117841DB111.B.B.1	Roadway Design
C00117841DB111.B.B.1.1	First Submission (60 %)
C00117841DB111.B.B.1.2	Second Submission (90%)
C00117841DB111.B.B.1.3	Final Submission
C00117841DB111.B.B.2	Bridges Design
C00117841DB111.B.B.2.1	Westbound Bridges
C00117841DB111.B.B.2.1.1	Stage I- Preliminary Submissions
C00117841DB111.B.B.2.1.2	First Submission
C00117841DB111.B.B.2.1.3	Final Submission
C00117841DB111.B.B.2.2	Eastbound Bridges
C00117841DB111.B.B.2.2.1	East Branch Hampton River Bridge
C00117841DB111.B.B.2.2.1.1	Stage I- Preliminary Submissions

WBS Path	WBS Name
C00117841DB111.B.B.2.2.1.2	First Submission
C00117841DB111.B.B.2.2.1.3	Final Submission
C00117841DB111.B.B.2.2.2	Hampton River Bridge
C00117841DB111.B.B.2.2.2.1	Stage I- Preliminary Submissions
C00117841DB111.B.B.2.2.2.2	First Submission
C00117841DB111.B.B.2.2.2.3	Final Submission
C00117841DB111.B.B.2.2.3	Rip Rap Road Bridge
C00117841DB111.B.B.2.2.3.1	Stage I- Preliminary Submissions
C00117841DB111.B.B.2.2.3.2	First Submission
C00117841DB111.B.B.2.2.3.3	Final Submission
C00117841DB111.B.B.2.2.4	King Street Bridge
C00117841DB111.B.B.2.2.4.1	Stage I- Preliminary Submissions
C00117841DB111.B.B.2.2.4.2	First Submission
C00117841DB111.B.B.2.2.4.3	Final Submission
C00117841DB111.B.B.2.2.5	Settlers Landing Road Bridge
C00117841DB111.B.B.2.2.5.1	Stage I- Preliminary Submissions
C00117841DB111.B.B.2.2.5.2	First Submission
C00117841DB111.B.B.2.2.5.3	Final Submission
C00117841DB111.C	**PUBLIC INVOLVEMENT / PUBLIC RELATIONS**
C00117841DB111.D	**ENVIRONMENTAL PERMITTING**
C00117841DB111.D.1	Wetlands and Waters Permitting
C00117841DB111.D.1.1	Threatened and Endangered Species
C00117841DB111.D.2	Hazmat and Environmental Site Assessments
C00117841DB111.D.3	LD 445 / Stormwater Permit
C00117841DB111.D.3.1	Stage 1A - Land Disturbance Permit
C00117841DB111.D.3.2	Project Wide Land Disturbance Permit
C00117841DB111.D.4	Noise Analysis
C00117841DB111.D.5	Individual Permits
C00117841DB111.D.6	U.S. Coast Guard Bridge Permit
C00117841DB111.E	**RIGHT OF WAY / EASEMENT ACQUISITIONS**
C00117841DB111.E.1	Right of Ways Plans
C00117841DB111.E.1.1	ROW Plans
C00117841DB111.E.1.2	Project Specific Acquisition and Relocation Plan
C00117841DB111.E.1.3	Virginia CTB Approval for Limited Access Revisions
C00117841DB111.E.2	ROW Acquisitions
C00117841DB111.E.2.1	Priority 1 ROW Acquisition
C00117841DB111.E.2.1.1	Early Priority ROW Acquisition- City of Hampton
C00117841DB111.E.2.2	Priority 2 ROW Acquisition
C00117841DB111.F	**UTILITY RELOCATIONS**
C00117841DB111.F.1	Dominion Energy
C00117841DB111.F.2	Verizon Virginia
C00117841DB111.F.3	COX Communication
C00117841DB111.F.4	Hampton River Sanitation District
C00117841DB111.F.5	Virginia Natural Gas
C00117841DB111.G	**CONSTRUCTION**

4.6 Proposal Schedule

WBS Path	WBS Name
C00117841DB111.G.1	Preconstruction, Submittals and Material Procurement
C00117841DB111.G.1.1	Submittals Roadway
C00117841DB111.G.1.2	Submittals Bridges
C00117841DB111.G.1.2.5	WB Hampton River Bridges
C00117841DB111.G.1.2.5.2	Rebar
C00117841DB111.G.1.2.5.3	Girders
C00117841DB111.G.1.2.5.4	Bearing Pads
C00117841DB111.G.1.2.3	Settlers Landing Road Bridge
C00117841DB111.G.1.2.3.2	Rebar
C00117841DB111.G.1.2.3.3	Girders
C00117841DB111.G.1.2.3.4	Bearing Pads
C00117841DB111.G.1.2.2	E. Branch Hampton River Bridge
C00117841DB111.G.1.2.2.2	Rebar
C00117841DB111.G.1.2.2.3	Girders
C00117841DB111.G.1.2.2.4	Bearing Pads
C00117841DB111.G.1.2.1	Hampton River Bridge
C00117841DB111.G.1.2.1.2	Rebar
C00117841DB111.G.1.2.1.3	Girders
C00117841DB111.G.1.2.1.4	Bearing Pads
C00117841DB111.G.1.2.4	King St. Bridge
C00117841DB111.G.1.2.4.2	Rebar
C00117841DB111.G.1.2.4.3	Girders
C00117841DB111.G.1.2.4.4	Bearing Pads
C00117841DB111.G.1.3	Submittals ITS
C00117841DB111.G.1.3.6	Area 1
C00117841DB111.G.1.3.6.1	ITS Devices BOP to King St
C00117841DB111.G.1.3.6.2	ITS Devices King St to Bridge
C00117841DB111.G.1.3.7	Area 2
C00117841DB111.G.1.3.7.3	ITS Devices WB Hampton River Bridges
C00117841DB111.G.1.3.8	Area 3
C00117841DB111.G.1.3.8.5	Tolling Gantry and Equipment
C00117841DB111.G.1.3.8.4	ITS Devices Bridge to EOP
C00117841DB111.G.1.4	Submittals Signage & Lighting
C00117841DB111.G.1.4.2	Area 1
C00117841DB111.G.1.4.4	Area 2
C00117841DB111.G.1.4.3	Area 3
C00117841DB111.G.2	Quality Assurance / Quality Control Process (QA/ QC)
C00117841DB111.G.3	Construction
C00117841DB111.G.3.1	Stage 1 - Shoulder Strengthening and Lane Shift
C00117841DB111.G.3.1.1	I-64 Eastbound
C00117841DB111.G.3.1.2	I-64 Westbound
C00117841DB111.G.3.1.3	I-64 Westbound Crossovers to EB -Hampton River Bridge
C00117841DB111.G.3.1.3	I-64 Westbound Crossovers to EB -Hampton River Bridge
C00117841DB111.G.3.2	Stage 2 - I-64 Reconstruct Median & 1st Phase of the Bridges
C00117841DB111.G.3.2.1	Area 1 - 658+73 to 721+13 (6,240 LF)

WBS Path	WBS Name
C00117841DB111.G.3.2.1.1	Area 1- Roadway
C00117841DB111.G.3.2.1.1.1	Area 1- ITS, Signage & Lighting
C00117841DB111.G.3.2.1.2	B-672- I-64 EBL/WBL over King Street - Phase 1
C00117841DB111.G.3.2.1.3	B-659 - I-64 EBL/WBL over Rip Rap Road -Phase 1
C00117841DB111.G.3.2.1.4	D-644- Triple 48 RCP Carrying Brights Creek Beneath I-64
C00117841DB111.G.3.2.1.5	B-677- Owens Street Pedestrian Underpass
C00117841DB111.G.3.2.2	Area 2 - 721+13 to 748+22 (2,709 LF)
C00117841DB111.G.3.2.2.1	Area 2 -Roadway
C00117841DB111.G.3.2.2.1.1	River Street
C00117841DB111.G.3.2.2.1.2	Boxwood Street
C00117841DB111.G.3.2.2.2	Westbound Bridge
C00117841DB111.G.3.2.2.2.1	WB Bridge Repairs
C00117841DB111.G.3.2.2.2.2	WBL Bridge Widening
C00117841DB111.G.3.2.2.2.2.1	Mobilization
C00117841DB111.G.3.2.2.2.2.2	Test Piles
C00117841DB111.G.3.2.2.2.2.3	Trestle
C00117841DB111.G.3.2.2.2.2.4	Piling River St.
C00117841DB111.G.3.2.2.2.2.5	Piling Trestle HR River St.
C00117841DB111.G.3.2.2.2.2.6	Piling Trestle HR East
C00117841DB111.G.3.2.2.2.2.7	Piling Hampton River
C00117841DB111.G.3.2.2.2.2.8	Piling Boxwood
C00117841DB111.G.3.2.2.2.2.9	Piling Trestle East Branch Hampton River
C00117841DB111.G.3.2.2.2.2.10	Bent Cap Boxwood
C00117841DB111.G.3.2.2.2.2.11	Bent Cap East Hampton River Bridge
C00117841DB111.G.3.2.2.2.2.12	Bent Cap Hampton River
C00117841DB111.G.3.2.2.2.2.13	Bent Cap River Street
C00117841DB111.G.3.2.2.2.2.14	Abutments
C00117841DB111.G.3.2.2.2.2.15	Cure - Bent Cap
C00117841DB111.G.3.2.2.2.2.16	Cure - Abutments
C00117841DB111.G.3.2.2.2.2.17	Cure - Footings
C00117841DB111.G.3.2.2.2.2.18	Cure - Pier Columns
C00117841DB111.G.3.2.2.2.2.19	Cure - Pier Cap
C00117841DB111.G.3.2.2.2.2.20	Girders Boxwood
C00117841DB111.G.3.2.2.2.2.21	Girders East Branch Hampton River Bridge
C00117841DB111.G.3.2.2.2.2.22	Girders Hampton River
C00117841DB111.G.3.2.2.2.2.23	Girders River Street
C00117841DB111.G.3.2.2.2.2.24	Demo Deck Edge Boxwood
C00117841DB111.G.3.2.2.2.2.25	Demo Deck East Branch Hampton River Bridge
C00117841DB111.G.3.2.2.2.2.26	Demo Deck Edge Hampton River
C00117841DB111.G.3.2.2.2.2.27	Demo Deck Edge River Street
C00117841DB111.G.3.2.2.2.2.28	Diaphragms Boxwood
C00117841DB111.G.3.2.2.2.2.29	Diaphragms East Branch Hampton River Bridge
C00117841DB111.G.3.2.2.2.2.30	Diaphragms Hampton River
C00117841DB111.G.3.2.2.2.2.31	Diaphragms River Street
C00117841DB111.G.3.2.2.2.2.32	Decks Boxwood

WBS Path	WBS Name
C00117841DB111.G.3.2.2.2.2.33	Decks East Branch Hampton River Bridge
C00117841DB111.G.3.2.2.2.2.34	Decks Hampton River
C00117841DB111.G.3.2.2.2.2.35	Decks River Street
C00117841DB111.G.3.2.2.2.2.36	Decks Cure
C00117841DB111.G.3.2.2.2.2.37	Barrier / Soundwall / Grooving / Stripe / Roadwork
C00117841DB111.G.3.2.2.2.2.38	ITS Devices WB- Hampton River Bridges
C00117841DB111.G.3.2.3	Area 3 - 748+22 TO 785+72 (3,750 LF)
C00117841DB111.G.3.2.3.1	Area 3- Roadway
C00117841DB111.G.3.2.3.1.1	Area 3- ITS, Signage & Lighting
C00117841DB111.G.3.2.3.2	B-676- I-64 EBL/WBL over Settlers Landing Road - Phase 1
C00117841DB111.G.3.3	Stage 3 - I-64 outside Widening / Noisewalls & 2nd Phase of Bridges
C00117841DB111.G.3.3.1	Area 1 - Sta. 658+73 to Sta. 721+13 (6,240 LF)
C00117841DB111.G.3.3.1.1	Area 1- Eastbound- Roadway
C00117841DB111.G.3.3.1.1.1	Roadway
C00117841DB111.G.3.3.1.1.2	Signage & Lighting
C00117841DB111.G.3.3.1.1.3	Retaining Wall and Noise Barrier Construction
C00117841DB111.G.3.3.1.1.3.1	Retaining Wall EB-01 (RW-3)
C00117841DB111.G.3.3.1.1.3.2	Ground Mounted Noise Barrier "M"
C00117841DB111.G.3.3.1.1.3.3	Retaining Wall EB-03 (RW-3)
C00117841DB111.G.3.3.1.1.3.4	Retaining Wall EB-04 (RW-3)
C00117841DB111.G.3.3.1.1.3.5	Combo RW/Noise Barrier DJKL-1
C00117841DB111.G.3.3.1.1.3.6	Ground Mounted Noise Barrier DJKL-1
C00117841DB111.G.3.3.1.2	Area 1 - Westbound - Roadway
C00117841DB111.G.3.3.1.2.1	Roadway
C00117841DB111.G.3.3.1.2.2	Signage & Lighting
C00117841DB111.G.3.3.1.2.3	Retaining Wall and Noise Barrier Construction
C00117841DB111.G.3.3.1.2.3.1	Ground Mounted Noise Barrier ABCD-1
C00117841DB111.G.3.3.1.2.3.2	Ground Mounted and Combo RW/Noise Barrier ABCD-2- West
C00117841DB111.G.3.3.1.2.3.3	Combo RW/Noise Barrier ABCD-2- East
C00117841DB111.G.3.3.1.5	Area 1- ITS
C00117841DB111.G.3.3.1.5.1	Area 1- ITS to King Street
C00117841DB111.G.3.3.1.5.6	Area 1- ITS from King Street to Hampton River Bridge
C00117841DB111.G.3.3.1.4	B-672 - I-64 EBL/WBL over King Street - Phase 2
C00117841DB111.G.3.3.1.4.1	B-672- I-64 WBL over King Street
C00117841DB111.G.3.3.1.4.2	B-672- I-64 EBL over King Street
C00117841DB111.G.3.3.1.3	B-659 - I-64 EBL/WBL over Rip Rap Road - Phase 2
C00117841DB111.G.3.3.1.3.1	B-659 - I-64 WBL over Rip Rap Road
C00117841DB111.G.3.3.1.3.2	B-659 - I-64 EBL over Rip Rap Road
C00117841DB111.G.3.3.2	Area 2 - 721+13 to 748+22 (2,709 LF)
C00117841DB111.G.3.3.2.1	Area 2 - Roadway
C00117841DB111.G.3.3.2.1.1	Area 2- Eastbound- I-64 Roadway 736+00 to 740+21
C00117841DB111.G.3.3.2.1.1.1	Retaining Wall and Noise Barriers
C00117841DB111.G.3.3.2.1.2	River Street
C00117841DB111.G.3.3.2.1.3	Boxwood Street
C00117841DB111.G.3.3.2.4	Eastbound Bridges

WBS Path	WBS Name
C00117841DB111.G.3.3.2.4.1	E. Branch Hampton River Bridge
C00117841DB111.G.3.3.2.4.1.1	Mobilization
C00117841DB111.G.3.3.2.4.1.2	Test Pile
C00117841DB111.G.3.3.2.4.1.3	Trestle
C00117841DB111.G.3.3.2.4.1.4	Demo Concrete Decks
C00117841DB111.G.3.3.2.4.1.5	Demo Steel Girders
C00117841DB111.G.3.3.2.4.1.6	Demo Concrete Piers
C00117841DB111.G.3.3.2.4.1.7	Piling
C00117841DB111.G.3.3.2.4.1.8	Bent Cap
C00117841DB111.G.3.3.2.4.1.9	Abutments
C00117841DB111.G.3.3.2.4.1.10	Cure - Bent Cap
C00117841DB111.G.3.3.2.4.1.11	Cure Abutment
C00117841DB111.G.3.3.2.4.1.12	Girders & Beams
C00117841DB111.G.3.3.2.4.1.13	Diaphragms
C00117841DB111.G.3.3.2.4.1.14	Decks East Branch Hampton River Bridge
C00117841DB111.G.3.3.2.4.1.15	Decks Cure
C00117841DB111.G.3.3.2.4.1.16	Barrier / Soundwall / Gooving / Stripe
C00117841DB111.G.3.3.2.4.2	EB Hampton River Bridge
C00117841DB111.G.3.3.2.4.2.1	Mobilization
C00117841DB111.G.3.3.2.4.2.2	Test Piles
C00117841DB111.G.3.3.2.4.2.3	Demolition Superstructure - Hampton River
C00117841DB111.G.3.3.2.4.2.4	Demolition Superstructure - River Street
C00117841DB111.G.3.3.2.4.2.5	Demolition Substructure - Hampton River
C00117841DB111.G.3.3.2.4.2.6	Demolition Substructure - River Street
C00117841DB111.G.3.3.2.4.2.7	Hampton River East Trestle Work
C00117841DB111.G.3.3.2.4.2.8	Piling River Street
C00117841DB111.G.3.3.2.4.2.9	Piling Hampton River
C00117841DB111.G.3.3.2.4.2.10	Bent Cap
C00117841DB111.G.3.3.2.4.2.11	Abutments
C00117841DB111.G.3.3.2.4.2.12	Cure - Bent Cap
C00117841DB111.G.3.3.2.4.2.13	Cure Abutments
C00117841DB111.G.3.3.2.4.2.14	Girders & Beams
C00117841DB111.G.3.3.2.4.2.15	Diaphragms
C00117841DB111.G.3.3.2.4.2.16	Decks Hampton River
C00117841DB111.G.3.3.2.4.2.17	Decks Cure
C00117841DB111.G.3.3.2.4.2.18	Barrier / Soundwall / Gooving / Stripe
C00117841DB111.G.3.3.2.4.2.19	ITS , Signage & Lighting
C00117841DB111.G.3.3.3	Area 3 - 748+22 to 785+72 (3,750 LF)
C00117841DB111.G.3.3.3.1	Area 3 - Eastbound - Roadway
C00117841DB111.G.3.3.3.1.1	Roadway
C00117841DB111.G.3.3.3.1.2	Retaining Wall and Noise Barrier Construction
C00117841DB111.G.3.3.3.1.2.1	Retaining Wall EB-06 (RW-3)
C00117841DB111.G.3.3.3.1.2.2	Retaining Wall EB-07 (RW-3)
C00117841DB111.G.3.3.3.1.2.3	Retaining Wall EB-08 (RW-3)
C00117841DB111.G.3.3.3.2	Area 3 - Westbound -Roadway

WBS Path	WBS Name
C00117841DB111.G.3.3.3.2.1	Roadway
C00117841DB111.G.3.3.3.2.2	Retaining Wall and Noise Barrier Construction
C00117841DB111.G.3.3.3.2.2.1	Retaining Wall WB-05 (RW-3)
C00117841DB111.G.3.3.3.2.2.2	Ground Mounted Noise Barrier "G"
C00117841DB111.G.3.3.3.3	Area 3 - Signage & Lighting
C00117841DB111.G.3.3.3.4	B-676 I-64 EBL/WBL over Settlers Landing Road - Phase 2
C00117841DB111.G.3.3.3.4.1	B-676- Eastbound Repairs
C00117841DB111.G.3.3.3.4.2	B-676- Westbound Widening
C00117841DB111.G.3.3.3.5	Area 3- ITS Devices Bridge to EOP
C00117841DB111.G.3.3.3.6	Area 3- Tolling and Gantry Equipment
C00117841DB111.G.3.4	Stage 4 - Final Pavement and Open Lanes
C00117841DB111.G.3.4.1	Area 1 - 658+73 to 721+13 (6,240 LF)
C00117841DB111.G.3.4.2	Area 2 - 721+13 to 748+22 (2,709 LF)
C00117841DB111.G.3.4.3	Area 3 - 748+22 TO 785+72 (3,750 LF)
C00117841DB111.G.3.4.3.1	Surface Paving to Interim Milestone

Plan to Accomplish the Work/Means and Methods

The following narrative describes our Team's overall plan and sequence of operations grouped by the Level 1 WBS Project disciplines. The sequencing of each discipline was developed by considering the construction staging and determining the longest path to Project completion. The Project sequence was developed to address the full scope of work. We divided the Project into logical and manageable areas that can be tracked and managed by dedicated supervision during design and construction stages.

Design

This section of the schedule includes the activities required for preliminary and final design including geotechnical work, TMP Plan, roadway, noise barriers and bridges design. Time for design QA/QC reviews has been accounted for within this section of the schedule, and a 21-calendar day activity for VDOT review of each submission is included. The design phase also includes non-critical activities for the completion of surveys and utility test pits. Geotechnical investigations include a 90-day calendar duration activity for VDOT's review of the geotechnical report prior to submission of the final roadway and bridge plans. The Design Schedule has been broken down into Preliminary Design and Final Design phases. The Preliminary Design packages are identified as follows:

- Early Start / MOT Plans for Stage 1
- Design Phase QA/QC Plan
- Survey and Mapping
- Geotechnical Investigations and Reporting.

The Final Design phase includes all Roadway and Bridge Design activities. Detailed design submissions have been broken down into three stages to allow for VDOT design reviews at interim periods over the design development until final design. Design stages for submissions are as it follows:

Roadways:

- 1st Submission: 60% Development
- 2nd Submission: 90% Development
- Final Submission: Final Design

Bridges:

- Stage I Bridge Report (1st Submission)
- Stage I Bridge Report (2nd Submission)
- 90% Development
- Final Design

Public Involvement

Public Involvement activities include submitting a Public Information and Communication Plan within 90 days of Notice to Proceed, submitting our Emergency Contact List, meeting with District Public Affairs, and holding public outreach meetings at the start of the construction phase. The Schedule includes major milestone activities for the Public Information Meetings before the start of construction, and at the traffic switch of both EB and WB lanes in Stage 3 to the completed WB bridge. However, there are many other public involvement activities that our Team will perform, including meeting with affected stakeholders and providing information for regular updates at progress meetings.

Environmental Permitting

This section of the schedule includes activities for preliminary environmental studies, hazardous material assessments, and environmental permits including the joint permit application (JPA) for wetlands and waters and VPDES permits. Environmental Permitting will begin upon Notice to Proceed with the completion of the needed surveys, followed by the CZMA application needed for JPA approval and the USCG permit. The JPA will be submitted following 60% comment resolution. Other activities include ESA's, the LD 445/Stormwater permit, Noise analysis preparation and approval, and the T&E documentation.

Right-of-Way /Easements

The Project requires the acquisition of Right-of-Way and easements from 15 individual properties. The preparation of title reports begins with the VDOT approval of the ROW plans and the CTB approval for Limited Access (L/A). Parcels acquired by our Team are further sequenced into Priority 1 and 2 parcels to ensure critical utility relocations and early stage construction activities can proceed on schedule.

Utility Relocation

To simplify and track the utility coordination, our Team has created WBS that groups the utility coordination by owner.

- DOMINION ENERGY
- VERIZON VIRGINIA
- COX COMMUNICATION
- HAMPTON ROADS SANITATION DISTRICT
- VIRGINIA NATURAL GAS

Within each utility owner group, we have included activities for holding the Utility Field Investigation (UFI) meeting, the preparation of the relocation design, the preparation of the Plan and Estimates (P&E), and approval of the P&E.

Although our Team has already met with each individual utility company to discuss the proposed relocations and prior rights, the utility relocation schedule starts with formal coordination meetings upon NTP. Initial utility designations and test pits will be an early focus to enable our Team to confirm and adjust our list of utility conflicts based on the preliminary field surveys prior to holding the formal UFI meeting with each utility owner. The utility relocations are anticipated to be completed in each location prior to construction operations to avoid conflicts and potential for delays.

Preconstruction, Submittals & Procurement

Key activities such as mobilization, submittals, subcontractor and major material/structures procurement, shop drawings, and fabrication activities have been included in the schedule and are tied to the relevant design and construction packages. Procurement packages have been viewed on an individual basis to allow for an efficient submittal process, and fabrication periods which have been included for delivery to site to ensure the procurement will not impact the construction activities.

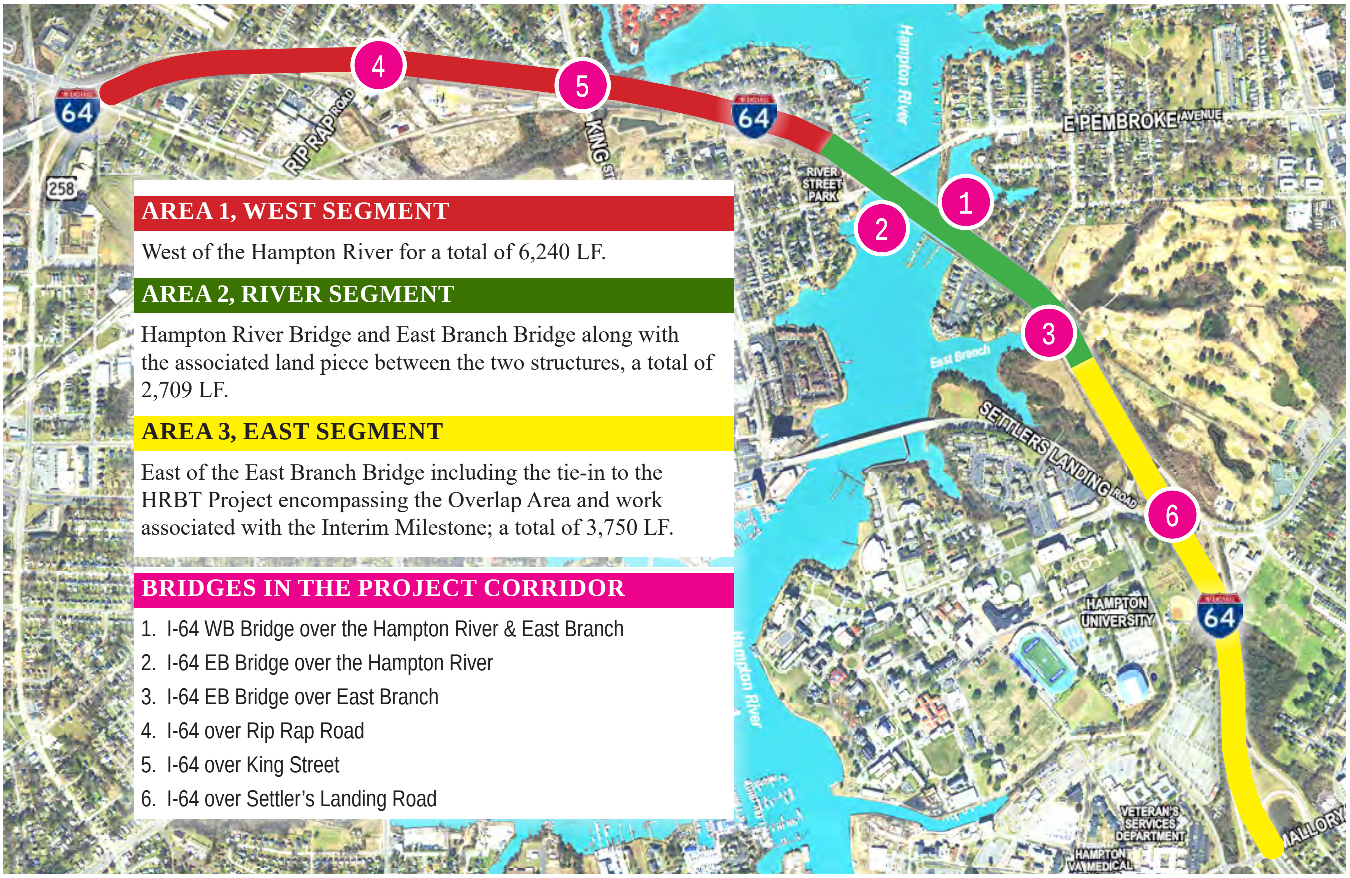
Quality Assurance and Quality Control

In a separate WBS group, the Team has identified the QA/QC activities for the Project. These include the submission and approval of the QA/QC plan and the Preparatory Meetings that are required prior to commencing with construction activities. The overall Level of Effort for the QA/QC process is represented by a bar spanning all construction activities.

Construction Project Work Areas

To efficiently execute our construction plan, the Project has been broken into two Roadway Work Areas and one Bridge Work Area as shown in Figure 4.6.1.1. The areas are divided by break points that allow for effective construction sequencing. This segmentation was also developed in conjunction with our Temporary Traffic Control (TTC) Plan and is of sufficient scope and size to allow individual construction management teams to oversee the operations. This allows for maximum utilization of resources and oversight of construction activities from a safety and quality perspective. The three Work Areas are:

Area 1 - West Segment: West of the Hampton River - Station 658+73 to 721+13 (6,240 LF).
Area 2 - River Segment: Bridges over Hampton River and East Branch along with the associated land piece between the two structures - Station 721+13 to 748+22 (2,709 LF).
Area 3 - East Segment: East of the East Branch Bridge including the tie-in to the HRBT Project encompassing the Overlap Area and work associated with the Interim Milestone - Station 748+22 to 785+72 (3,750 LF).



AREA 1, WEST SEGMENT

West of the Hampton River for a total of 6,240 LF.

AREA 2, RIVER SEGMENT

Hampton River Bridge and East Branch Bridge along with the associated land piece between the two structures, a total of 2,709 LF.

AREA 3, EAST SEGMENT

East of the East Branch Bridge including the tie-in to the HRBT Project encompassing the Overlap Area and work associated with the Interim Milestone; a total of 3,750 LF.

BRIDGES IN THE PROJECT CORRIDOR

1. I-64 WB Bridge over the Hampton River & East Branch
2. I-64 EB Bridge over the Hampton River
3. I-64 EB Bridge over East Branch
4. I-64 over Rip Rap Road
5. I-64 over King Street
6. I-64 over Settler's Landing Road

Figure 4.6.1.1 - Work Areas

Construction Sequence

We developed four major Stages of construction corresponding to our Team's Transportation Management Plan (TMP) detailed in Section 4.5.2. Each Stage corresponds to a major traffic control sequence as construction activities progress. Work along the 2.5-mile corridor, in all three Work Areas, as described above in Figure 4.6.1.1, will be constructed concurrently during each major traffic Stage. Exhibits 4.5.1.2, 4.5.1.3, and 4.5.1.4 depict our Temporary Traffic Control (TTC) plan for the major stages of construction. A brief summary of our planned Construction Staging and Areas is shown in Table 16:

Table 16 - Stages, Work Areas and Major Elements

Stage	Work Areas	Major Elements
Stage 1	1 & 3	▪ Perform outside shoulder strengthening along both I-64 EB and westbound only in areas required such as bridge approaches and where full-depth pavement reconstruction is called for on the existing travel lanes. ▪ Place temporary pavement markings and shift traffic in temporary configuration towards the outside. ▪ Install crossover pavement at both ends of the Hampton River crossings to allow all WB lanes to switch over to the existing EB bridge.
Stage 2	1 & 3	▪ Reconstruct the median barrier, install drainage, and reconstruct full depth shoulders along both I-64 EB and WB in the median. ▪ Perform bridge repairs, abutment deck slab extensions, pier joint reconstruction, and bridge deck overlays at the interior portions of the I-64 bridges over Rip Rap Road, King Street, and Settlers Landing Road. ▪ Installation of temporary lighting and ITS.
	2	▪ Perform bearing replacements, bridge repairs, abutment deck slab extensions, pier joint reconstruction, and bridge deck overlays for I-64 WB Bridge over Hampton River ▪ Perform I-64 WB Bridge over Hampton River work.
Stage 3	1 & 3	▪ Switch traffic towards reconstructed median completed in Stage 2. ▪ Demolish existing outside shoulders and any mainline pavement. ▪ Install new roadway drainage. ▪ Perform widenings, joint repairs, deck slab extensions, and substructure improvements at the exterior portion of the I-64 bridges over Rip Rap Road, King Street, and Settlers Landing Road. ▪ Construct the retaining walls and noise barriers.
	2	▪ Switch both EB and WB traffic to completed WB bridge over Hampton River. ▪ Demolish and reconstruct the entire EB Bridges over the Hampton River Bridge and East Branch.
Stage 4	All	▪ Shift traffic to its final configuration. ▪ Place all surface asphalt, permanent pavement markings, permanent signing, and finishes. ▪ Complete systems testing, inspections, and punchlist.

The sequence of construction proposed by our Team provides flexibility throughout all Areas and Stages of construction. With the diverse talent of our Joint Venture Team, we are able to concurrently prosecute work in multiple Areas and construct different elements of work as the schedule dictates. Exhibit 4.5.1.5 graphically depicts our sequence of construction broken down by Area, Stage, and Major Work Elements such as Roadway, Bridge, Noise Barriers, ITS/Signage/Lighting, and Final Closeout.

As shown in the Exhibit, in Area 2, the critical path of the schedule runs through the repairs and the widening of the I-64 WB Bridge over Hampton River, and then progresses to the demolition and reconstruction of the I-64 EB Bridges over Hampton River and the East Branch. Meanwhile, in Areas 1 and 3, the roadway and other major structures are being constructed concurrently. As the Project moves towards completion, Area 3 will completed first to meet the Interim Milestone with all lanes of I-64 EB and WB to the east of the I-64 Bridges over Settlers Landing Road open to traffic for safe and unrestricted use. The balance of final pavement surfacing will be staged so that areas of the Project can be completed and opened to traffic continuously from end to end with all signing, lighting, and ITS systems in-place and operational.

Detailed descriptions of each Stage and the benefits of our proposed sequence are described as follows:

Stage 1 - Outside Shoulder Strengthening and Crossovers

Stage 1 - Areas 1 and 3

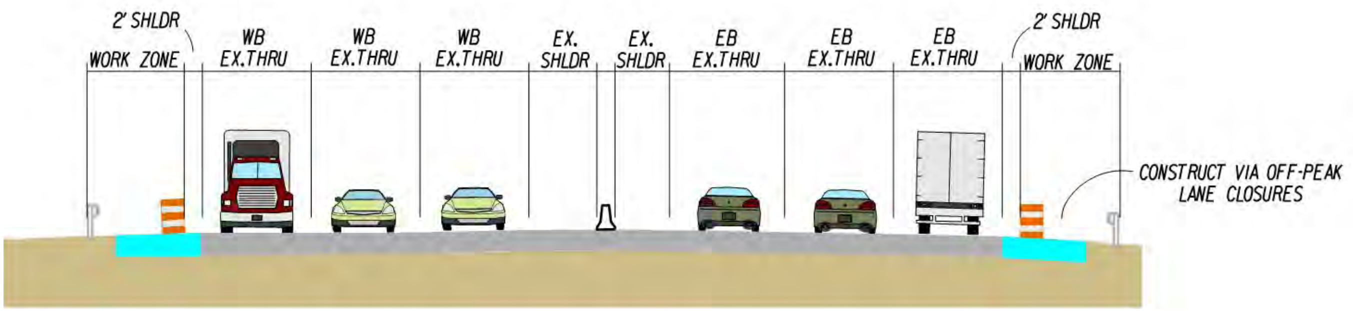


Figure 4.6.1.2 - Stage 1 Strengthen Outside Shoulder

All Stage 1 work is within existing VDOT ROW and requires no drainage adjustments. Upon approval of the early TTC Plan Set, we will begin the outside shoulder strengthening as shown in Figure 4.6.1.2. This strategy allows the lane shift to the outside to be completed prior to final plan approval and receipt of environmental permits. The varying depth existing shoulder will be removed by milling and repaved with temporary base and intermediate asphalt. This shoulder strengthening operation will be performed at night with lane closures. Operations will be planned so that no drop-offs greater than 2" remain at the end of any shift. Traffic will be shifted to the outside at completion of the shoulder strengthening.

Median crossovers shown in Figure 4.6.1.3 will be constructed at both the east and west ends of the Hampton River and East Branch bridge approaches. The crossovers will allow all WB I-64 traffic to transition onto the existing EB bridge structures. The crossovers will be constructed to be used for the subsequent Stage 3 EB traffic switch required to demolish and reconstruct the EB Hampton River and East Branch structures. Upon completion of the crossovers, all WB traffic will be shifted onto the EB bridge.

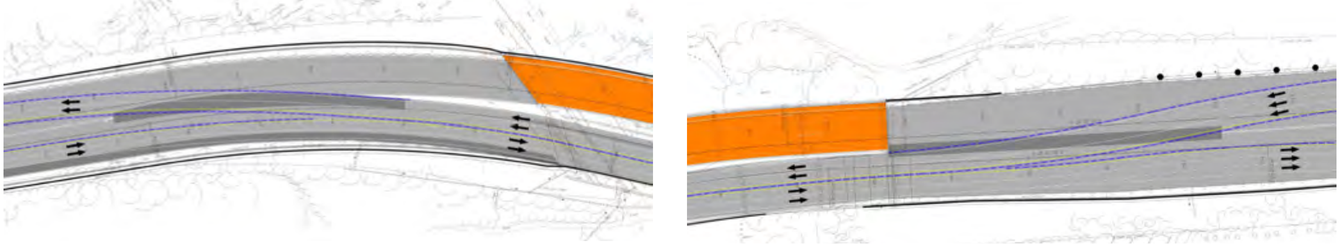


Figure 4.6.1.3 - Stage 1 Crossovers at Hampton River Crossings (West Approach shown on Left, East Approach shown on Right)

Stage 2 - Median Reconstruction, Bridge Repairs, and WB Hampton River Bridge Widening

Stage 2 - Area 1

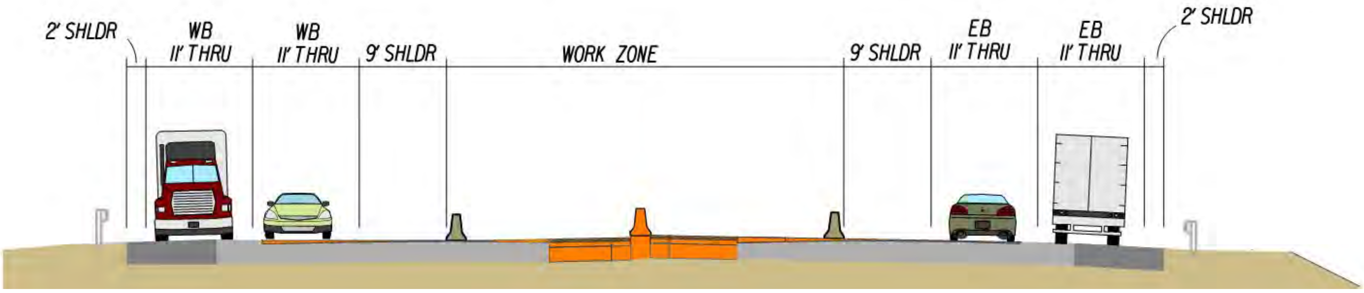


Figure 4.6.1.4 - Stage 2 Inside Median Reconstruction

Following the shoulder strengthening and traffic switch in Stage 1, temporary pavement markings and markers will be placed on the newly aligned areas and temporary concrete barrier set along the entire length of the Project to safely separate traffic from the Stage 2 median work as shown in Figure 4.6.1.4.

In Stage 2, our Team will provide a 9' or wider shoulder providing safety and operational benefits. Narrower shoulders will only be utilized in limited constrained areas, such as across bridges and adjacent to ramps. The existing median barrier separating the two barrels of roadway will then be demolished along with the existing shoulders. All new longitudinal median drainage piping and inlets will be installed. New median drainage outfall pipes that cross under the existing lanes of I-64 will be installed using a trenchless jack and bore method. Following completion of new drainage and installation of the new median barrier, the inside shoulders will be reconstructed and paved to meet existing I-64 grades to allow appropriate surface drainage.

Both of the existing inside portions of the Rip Rap Road and King Street bridges will be repaired and rehabilitated. These two pairs of bridges will be worked on concurrently to economize the use of specialty crews for substructure repairs and latex overlay. Figures 4.6.1.5 and 4.6.1.6 depict the work areas available to perform the necessary bridge repairs for both of these bridges.

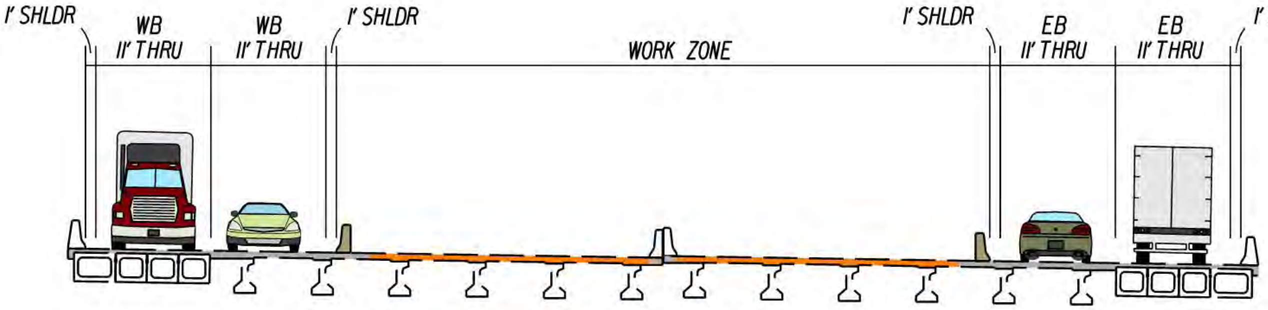


Figure 4.6.1.5 Stage 2 Rip Rap Road

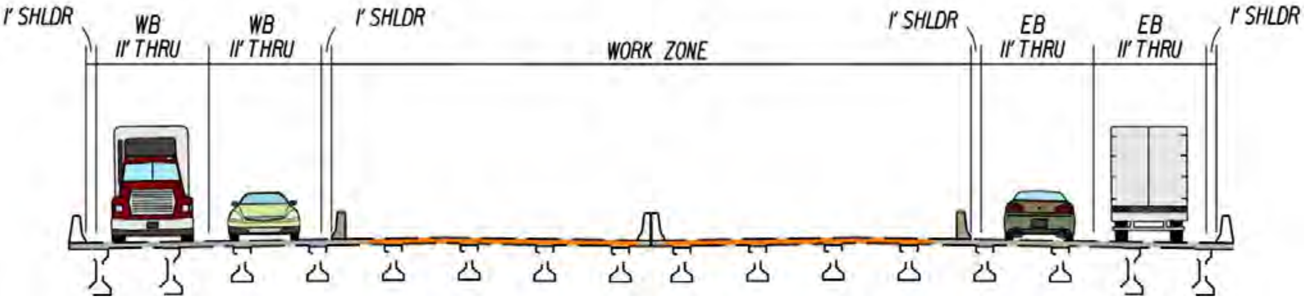


Figure 4.6.1.6 Stage 2 King Street Bridge

In this Stage, the following work sequence will be utilized for both Rip Rap Road and King Street:

- Prior to any repair work, the existing bearings will be replaced. The crews will stage jacking operations underneath the structures and perform the work under night-time lane closures.
- The new and existing portions of the bridge deck will be retrofitted to be continuous at pier locations.
- The existing abutments shall be retrofitted to use VDOT's standard deck extension detail with buried approach slabs as shown in Figure 4.6.1.7. This will

Figure 4.6.1.7 Abutment Deck Slab Extension

require complete replacement of the approach slabs and modification of the abutments.

- Repair of the existing bridge deck for the EB and westbound directions will include Type A milling to a depth of 1”, Type A hydro-demolition, deck repairs and construction of a rigid concrete overlay. The rigid concrete overlay will consist of Latex Modified Concrete which will extend from the hydro-milled surface up to the original grade of the deck surface as shown in Figure 4.6.1.8.


Figure 4.6.1.8 Bridge Latex Overlay

Stage 2 - Area 2
I-64 WB Bridge Over Hampton River Repairs

Work in this Stage includes the replacement of all bearing assemblies and anchor bolts; clean and repair of bearing seats; modification of abutments; joint replacements; repair and spot coat of structural steel in Spans 36 and 37 and the integral pier cap at Pier 37; and latex overlay of the deck. This work will be included in an early works package that starts before the WB bridge widening, pending the issuance of the USCG Permit. By shifting all traffic to the EB bridge structure, our Team will complete the repairs entirely without requiring multiple traffic switches. This provides VDOT with a better quality finished product by performing the latex overlay without traffic on the same structure and without construction joints and improves worker and motorist safety. The main access for this work will be the top of the existing bridge, while the bearing repairs will be performed by bridge access platforms and manlifts underneath the bridge.

I-64 WB Bridge Over Hampton River Widening

The WB widening will start upon receipt of an approved USCG Permit. The scope of work includes an outside widening of the existing bridge by 12 feet. To expedite this work, our Team has divided the length of the bridge into four headings of work: Hampton Branch, Boxwood, Hampton River, and River Street Park as illustrated in Figure 4.6.1.9. Each heading of work will be performed independently with dedicated crews. The Boxwood and River Street Park headings will be land-based operations. Temporary access trestle systems will be required west of Pembroke Avenue Bridge, Hampton Branch and portions of the Hampton River headings that do not have the water depth to support marine operations.

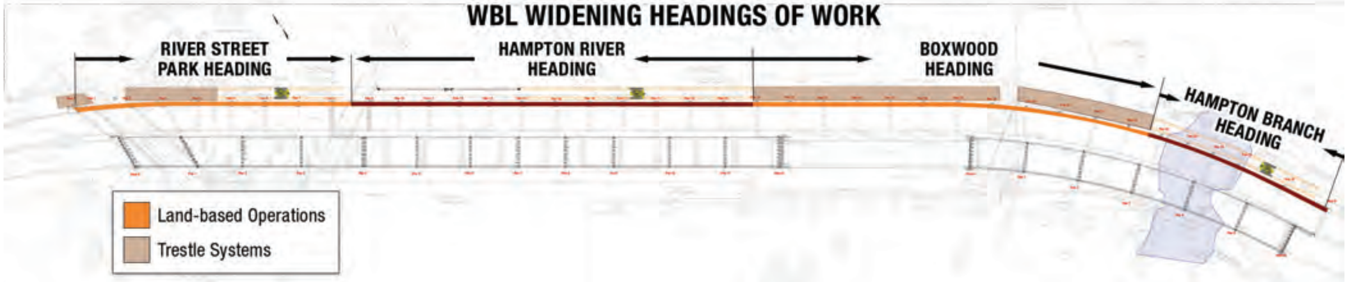


Figure 4.6.1.9 WB Hampton River Bridge Widening Headings of Work

Stage 2 - Area 3

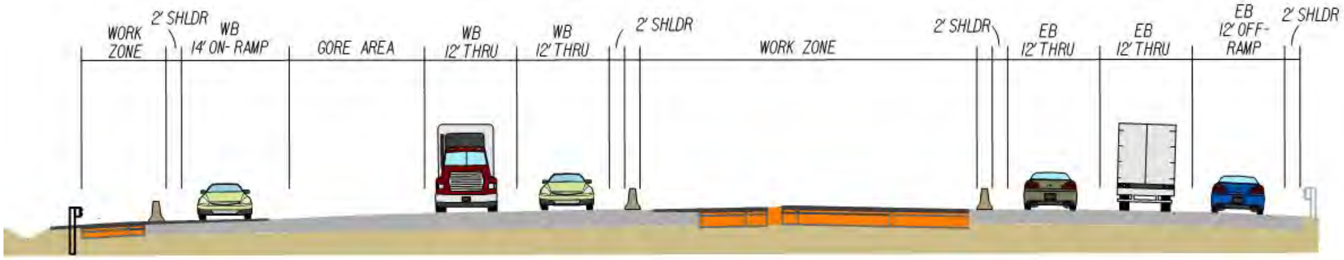


Figure 4.6.1.10 - Stage 2 Area 3 (Station 758+00) - Inside Median Reconstruction

Similar to Area 1, in Area 3, the existing median barrier separating the two barrels of roadway will be demolished along with the existing shoulders. New longitudinal drainage will be installed along with the trenchless crossings of I-64 for the lateral outlet pipes. Figure 4.6.1.10 depicts a typical work zone set up in the median with the ramps shown at Station 758+00.

During Stage 2, the Settlers Landing Road Bridges will undergo the same repair procedures as described for the Area 1 Bridges. The work zone is shown in Figure 4.6.1.11.

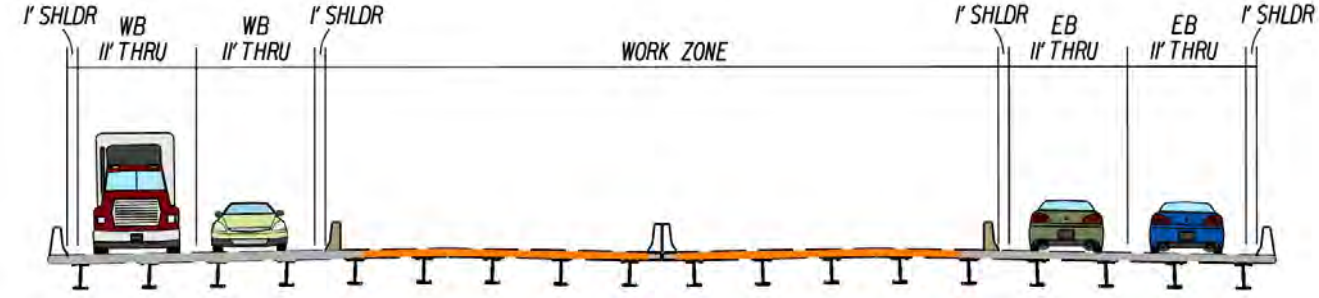


Figure 4.6.1.11 – Stage 2 Settlers Landing Road Bridge

Stage 2 – ITS/Lighting Pre-work

Our Team understands the criticality of beginning the ITS, signing, and lighting work as soon as construction starts. Material availability issues and long-lead times for furnishing materials must be mitigated to the extent possible so as to not impact the overall costs and schedule. Additionally, existing ITS assets and lighting conditions must be maintained until such time as the new ITS and lighting systems are installed and operational. The following measures are planned to mitigate these potential issues:

Early Procurement of Materials

As shown in our Proposal Schedule, shop drawings and catalog cuts for the tolling system, ITS, signing, and lighting materials are planned to start immediately upon approval of the plans. Long-lead times for fabrication and delivery are anticipated for the steel structures, ITS devices, generators, tanks, cabinets, and cabling. Procurement of these materials as early as possible during the construction phase will ensure all items are immediately available upon the start of installation during the applicable MOT phase. Early material procurements will also have the added value of minimizing potential cost escalations.

Temporary ITS/Lighting System

As an early construction activity, our Team plans to install temporary ITS and lighting systems to minimize the risk of accidental strikes or outages to the existing systems. Wooden poles with temporary luminaires will be installed along both sides of the I-64 corridor in locations that will not be adversely impacted by construction activities. Temporary ITS communications fiber will also be installed on the poles to help ensure continuity of service to the existing ITS devices during construction. Additionally, temporary communications fiber will be installed on the I-64 WB Bridge over Hampton River, which will result in a continuous temporary fiber run throughout the Project limits.

Stage 3 Outside Roadway Widening and EB Hampton River Bridge Reconstruction

Following completion of Stage 2 work, the travel lanes will be shifted towards the inside onto the newly constructed inside shoulder. On the right side, the existing traffic barrier service will be relocated to allow all Stage 3 work to commence behind the temporary barrier. Similarly, as in Stage 2, we will provide 9' shoulders throughout the majority of the alignment as shown in Figure 4.6.1.12.

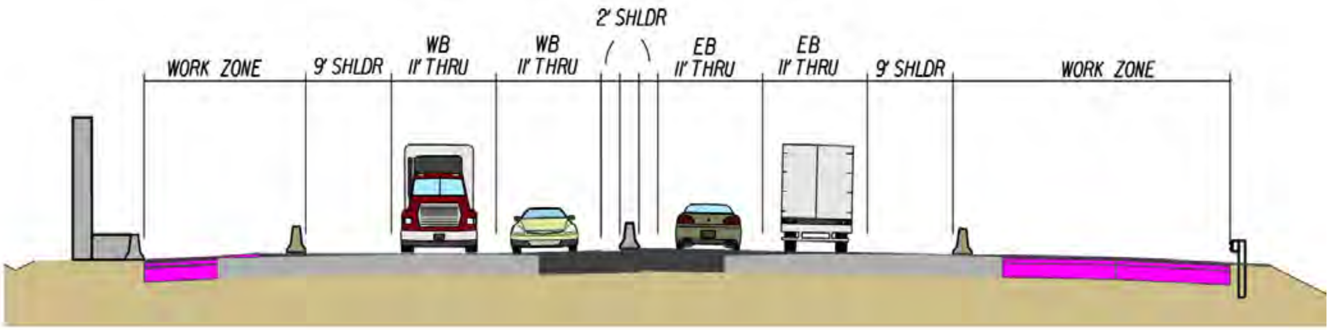


Figure 4.6.1.12 - Stage 3 – Outside Widening and Retaining Wall and Noise Barrier Construction

Stage 3 - Area 1

Both EB and WB portions of I-64 are widened with all of the existing shoulders and portions of the existing mainline being demolished and reconstructed with the new pavement section. All of the existing noise barriers will be demolished and replaced with either a new ground-mounted noise barrier or a combination retaining wall and noise barrier. Retaining walls and noise barrier construction will control the earthwork movements in this Stage as over 4,300' of walls EB and 3,600' of walls westbound will be constructed. Following completion and backfill of retaining walls and noise barriers, all new outside drainage will be installed along with new sign foundations, lighting systems and ITS conduits and devices. The new pavement section will be placed and MB-7D barrier installed as shown in Figure 4.6.1.12 to protect the noise barriers adjacent to traffic.

Rip Rap Road Bridge

Similar to Stage 2, the remaining bridge repairs on the outside portions of the Rip Rap Road overpass will be performed in this Stage as shown in see Figure 4.6.1.13. Rip Road Bridge will not require widening, but the existing bridge deck joints will be removed and the abutment backwalls will be reconstructed. Milling of the bridge decks will be performed to determine the amount of deck surface repairs that will be required. Concurrently, bridge deck surface repairs will be performed. The existing approach slabs will be demolished, and new buried approach slabs will be formed and poured, and all required substructure repairs will be made. Finally, the decks will be overlaid to create a new riding surface.

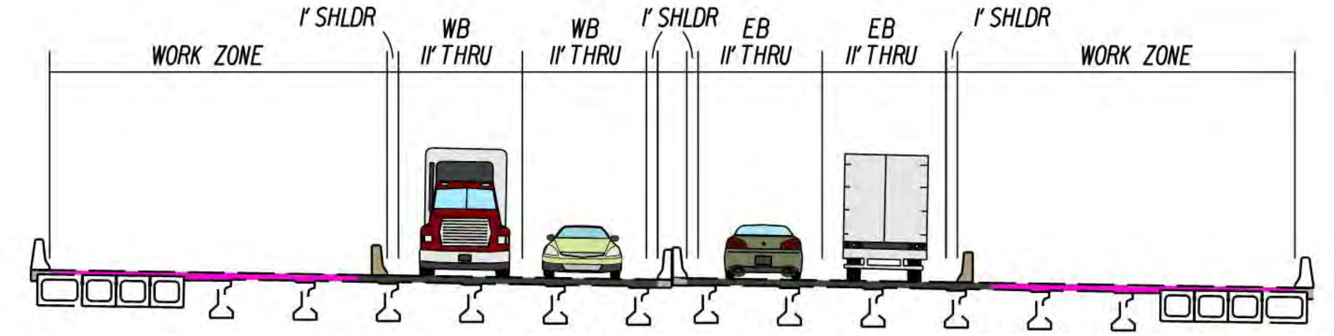


Figure 4.6.1.13 Stage 3 – Rip Rap Road Bridge Work Zones

King Street Bridge

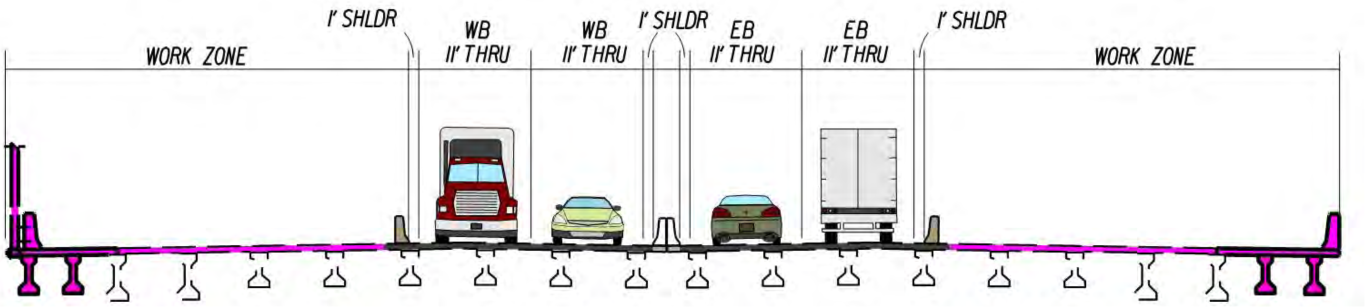


Figure 4.6.1.14 - Stage 3 King Street Bridge

In Stage 3, the King Street bridge will be widened to add one additional lane to I-64 EB and WB as shown in Figure 4.6.1.14. Two new piers will be added as well as widening of the existing abutments. Prior to structure excavation for the new piers, the Team will relocate the existing utilities in King Street.

For WB Pier 1, our Team discovered during preparation of our Technical Proposal that the existing Pier footing conflicts with the new Pier footing. Our unique design solution for the conflict, which provides an extension of the existing footing with a new pier column and cap is detailed in Section 4.3.2. One girder line will be added in each direction and the superstructure widened to tie into the existing deck. Finally, the remaining deck section will be milled, and the required hydro-demolition will be performed prior to installation of the latex modified overlays.

Stage 3 - Area 2

I-64 EB Bridge Over Hampton River

Following completion of the Stage 2, I-64 WB Bridge over Hampton River widening and repairs, all traffic crossovers are similar to those utilized in Stage 2 to shift to the newly widened WB bridge to start the Stage 3 work, as shown in Figure 4.6.1.15.

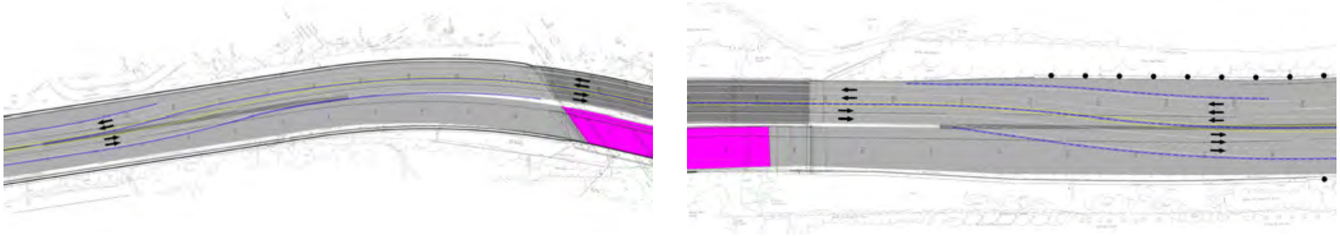


Figure 4.6.1.15 - Stage 3 Crossovers at HR Bridges (West Approach shown on Left, East Approach shown on Right)

Very confined work spaces exist on the south side of the bridge due to the overhead transmission line and a marina. Our Team evaluated several options for access which included a temporary access trestle in the middle between the bridge structures, temporary access trestle on the south side of the bridge, and an over-the-top temporary access trestle that straddles the EB bridges. As shown in Figure 4.6.1.16, access to demolish and reconstruct the I-64 EB Bridge over Hampton River will primarily use a marine-based operation within the footprint of the existing bridge to maintain a safe distance from the overhead transmission lines in combination with a small over-the-top trestle system in the shallow water area. The marine-based operations will operate from the Pembroke Avenue Bridge east to existing Bent 19. A small over-the-top trestle with be used from Bent 19 to Abutment B. The River Street Park section west of Pembroke Avenue will utilize land-based operations working primarily within the footprint of the bridge.

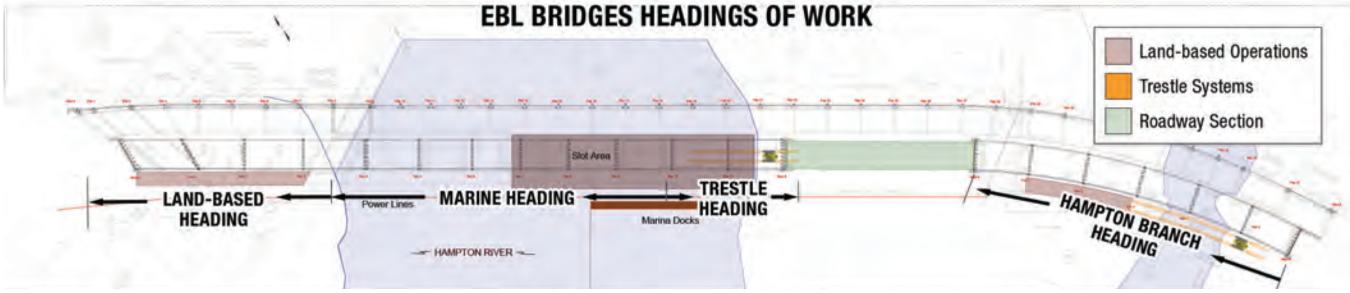


Figure 4.6.1.16 – EB Hampton River Bridge Headings of Work

The first step for demolition across the existing bridge is to clear out an area on the east end so that marine-based operations can operate between the existing WB bridge, the overhead transmission lines, and the marina docks as illustrated in Figure 4.6.1.17.

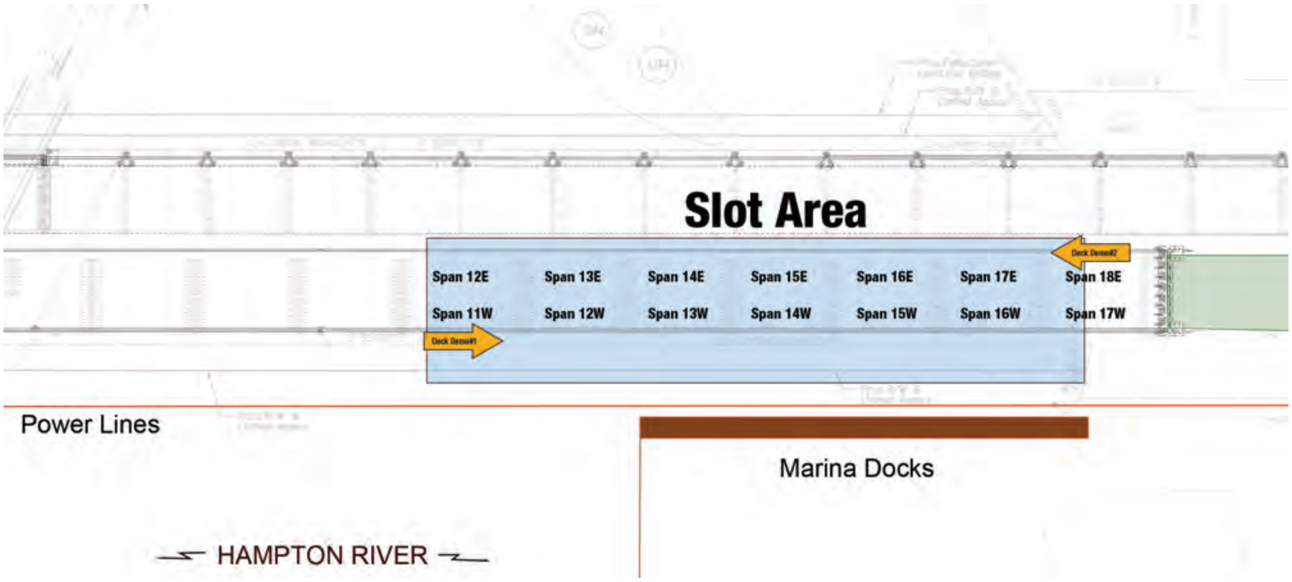


Figure 4.6.1.17 - EB Hampton River Bridge superstructure removal and slot for marine-based operation

The demolition of the superstructure will start at existing Span 11W and work east towards Abutment A. This work will be performed by a crawler crane sitting on a temporary platform supported by the existing bridge structure. The crane will progress its way down the north half of the bridge removing the south half deck sections. Once the south bridge sections are removed, the crane will work its way back west removing the north bridge deck sections. The superstructure will be wired sawed and cut into sections small enough for the crawler crane to safely handle and transported by tractor trailers to our designated disposal site in Chesapeake, VA. There the concrete deck sections will be processed into recycled concrete rubble and the steel beams and reinforcing steel will be salvaged as scrap steel. The Team will use best management practices to keep falling debris from our demolition operations out of the water by using barges and other catch mechanisms.

Once access to the slot area shown in figure 4.6.1.17 is opened up to marine-based equipment by removing the superstructure, the substructure demolition at existing bent 16 will start and work east to bent 19 within the footprint of the bridge. At the same time, the superstructure demolition will continue to proceed west for the remaining portion of the bridge. Another demolition crew will start installing the over-the-top temporary access trestle needed to access existing Bents 20 & 21 as shown Figure 4.6.1.18.

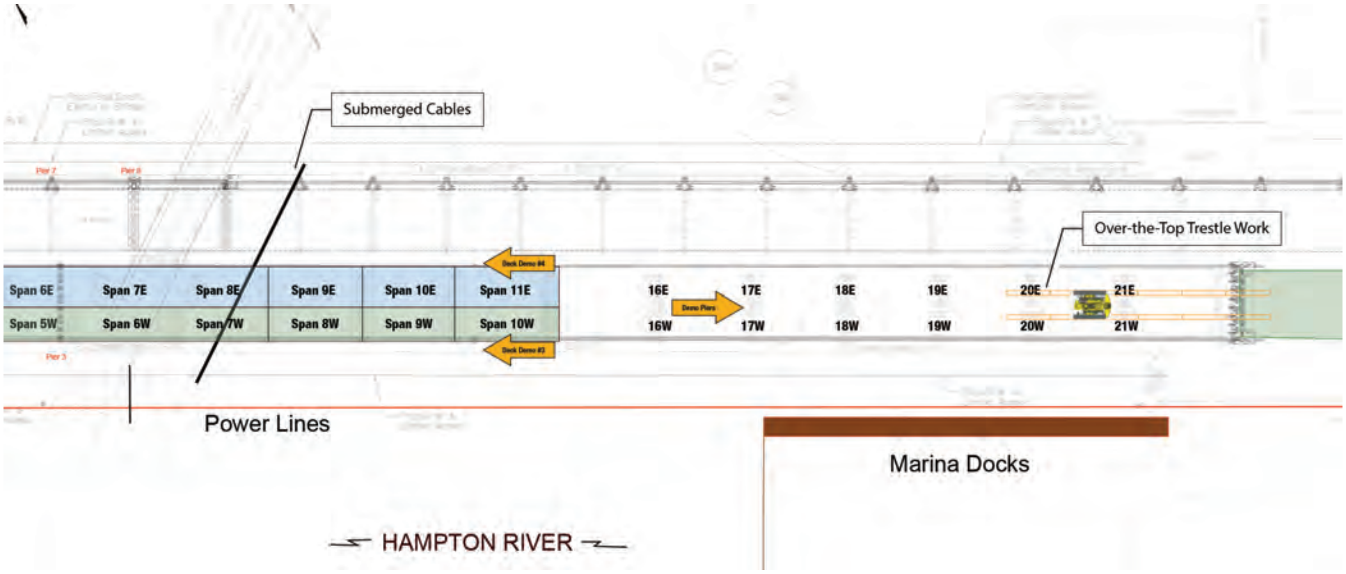


Figure 4.6.1.18 Temporary trestle location for access

Once the substructure has been removed to an elevation of two feet below the mudline within the slot area, the new bridge construction will start with the pile driving operations at Bent 9 and working back west towards Pembroke Avenue. Bents 10 & 11 will be constructed using the over-the-top temporary access trestle system simultaneously. Figure 4.6.1.19 depicts this sequence of work.

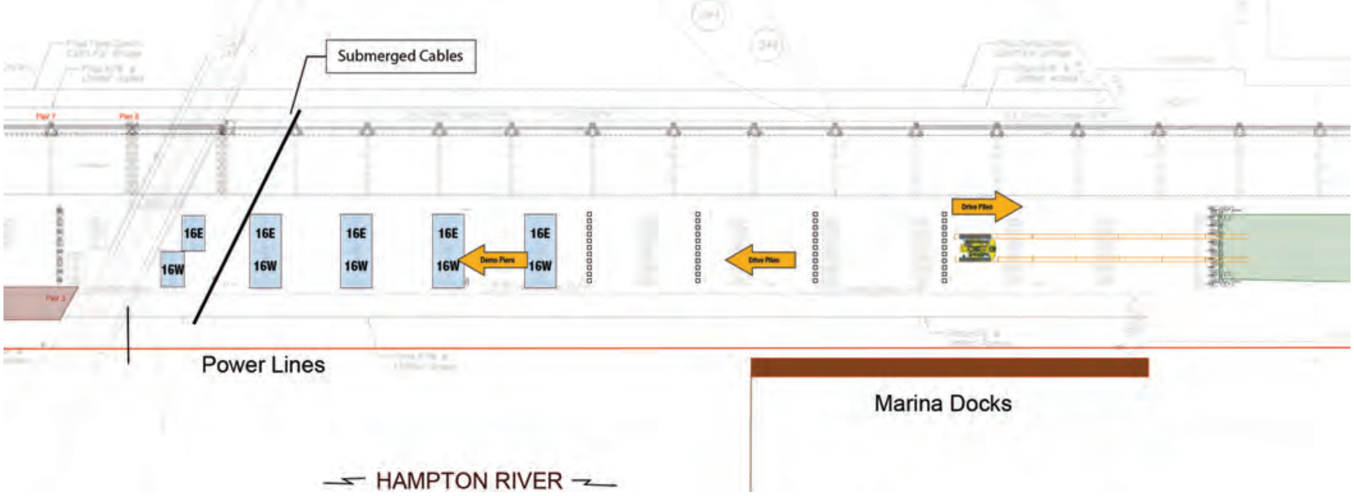


Figure 4.6.1.19 - Substructure demolition and pile driving sequence

The bridge construction will continue moving east to west towards Pembroke Avenue as shown in Figure 4.6.1.20. Once the demolition west of Pembroke Avenue is complete, a separate bridge construction heading will start in the River Street Park section and work east towards Pembroke Avenue. One critical construction activity that needs to be coordinated between the two headings is the erection of Span E over Pembroke Avenue. This work will be performed at night using temporary closures on Pembroke Avenue and an EB traffic lane closure on the existing WB bridge for delivery of the girders. Cranes positioned in River Street Park and on a barge in the Hampton River will work together to erect this span. Once Span E is erected, the adjacent spans on either side of Pembroke Avenue can be erected and the deck construction will continue west through those spans.

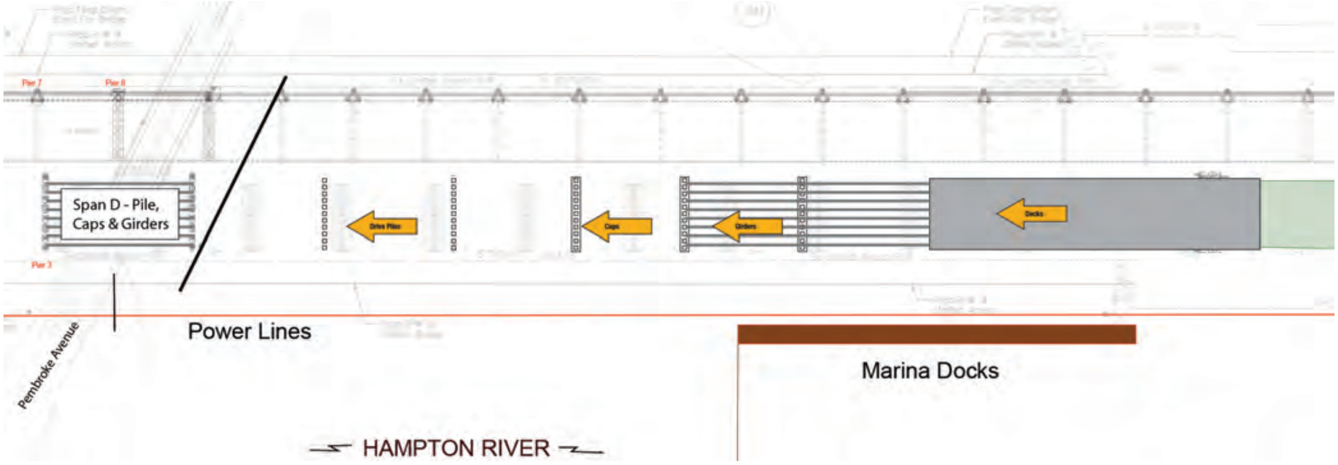


Figure 4.6.1.20 - Construction and Pembroke Ave span

I-64 EB Bridge Over East Branch

The demolition of the existing fracture critical bridge over the East Branch will start simultaneously with the EB Hampton River Bridge construction activities. Our Team has developed a demolition plan that will be designed by a professional engineer before demolition begins. The bridge will be removed starting at Abutment B and working west back towards Boxwood Avenue. The work in the Hampton Branch area will utilize a temporary access trestle. Once the demolition crews have completed their work on the trestle and moved to the landside approaching Boxwood Avenue, our bridge construction crews will move on to the trestle and start constructing the new bridge. The existing and the new Abutment A are located just west of overhead transmission line crossing. All work will be carefully coordinated with Dominion Power and demolition and construction will maintain a 15-foot clearance from the lines at all times. Cranes will be positioned on each side of the overhead line so that beams can be temporarily set on one end of the abutment and the other end on a bent cap falsework system. We will utilize a roller and jack system to launch the beams transversely into their final position.

Stage 3 - Area 2 Roadway

Following construction of Abutment B for the I-64 EB Bridge over Hampton River and Abutment A of the I-64 EB Bridge over East Branch, crews will construct the 450’ long roadway plug between the two bridges. This roadway will be supported by retaining wall EB-05 on the inside median and by embankment fill on the outside. New drainage will be installed along with a new ground mounted noise barrier on the outside portion of the roadway. Following construction of bridge approach slabs and connection of the new lighting and ITS systems, the new pavement section will be installed.

Stage 3 - Area 3

Similar to Area 1, both EB and WB I-64 existing shoulders and portions of the existing mainline are demolished and reconstructed with the new pavement section as depicted in Figure 4.6.1.21. New retaining walls and noise barriers are also constructed in this Area.

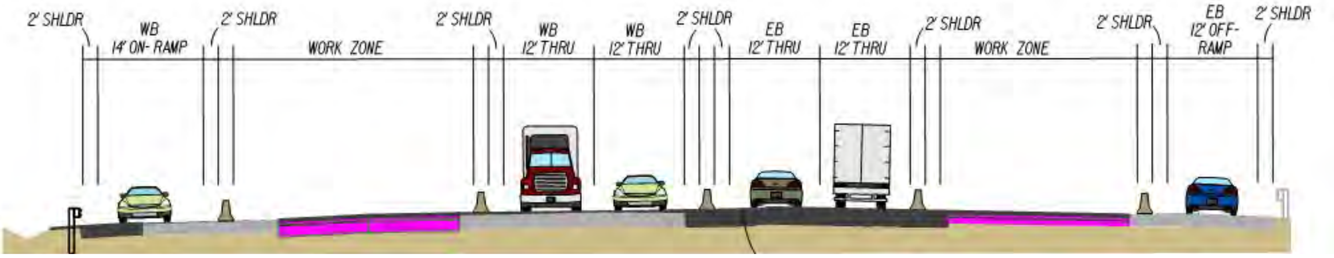


Figure 4.6.1.21 - Stage 3 Area 3 (Station758+00) Outside Widening at Settlers Landing Road Interchange Ramps

Settlers Landing Road Bridge

In Stage 3, the outside portion of the Settlers Landing Road bridges will undergo the same repair procedures as described for the Area 1 bridges and the westbound bridge will be widened to add an additional lane as shown in Figure 4.6.1.22. Three new piers will be added as well as the widening of the two abutments. All new substructure will be founded on drilled shafts or micropiles per the RFP requirements.

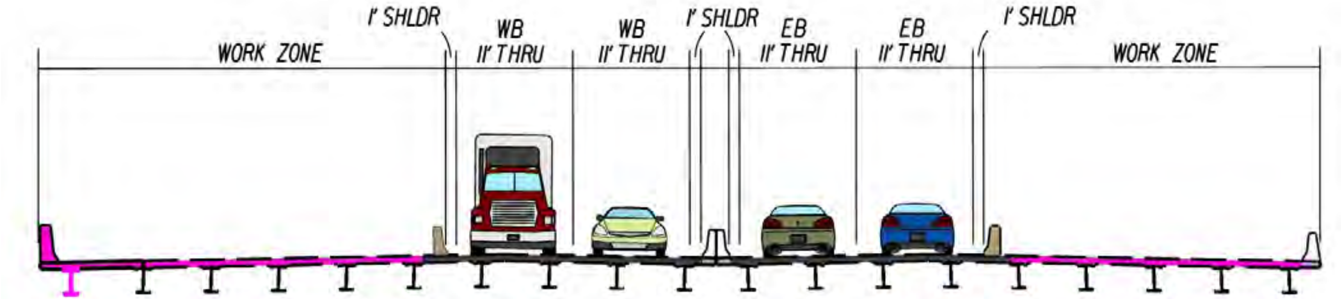


Figure 4.6.1.22 – Stage 3 Settlers Landing Road Bridge

Stage 3 – ITS/Tolling/Lighting/Signing

ITS/Tolling

Early in Stage 3 (Work Areas 1 and 3), the communications backbone conduits and junction boxes will be installed in conjunction with the embankment and retaining wall construction. ITS cabinets and associated branch conduit will be installed as soon as embankment platform areas have been established. For Work Area 2, the backbone conduits will be installed underneath the WB Hampton River bridge widened section. With the planned early procurement and delivery of materials accomplished during Stages 1 and 2, we anticipate installation of the ITS devices, toll gantry, and tolling equipment to proceed as soon as specific site areas have been prepared. Pulling of the backbone fiber will occur concurrent with the ITS and tolling installations, such that devices will be ready for testing well before the required completion milestones. All tests will be accomplished per our accepted Testing and Integration Program and will include, among the other requirements of the RFP, field acceptance tests, Traffic Operations Center (TOC) integration tests, and systems acceptance tests.

Our Team will provide VDOT the required window for Tolling System Integration (TSI) starting on May 1, 2026 coinciding with the completion of the work required to achieve the Interim Milestone. ***This date is 61 days earlier than the RFP Interim Milestone Date and provides TSI staff over 8 months of access to the construction zone and the competed overhead sign structures, cabinet foundation, and other civil infrastructure installed that support the tolling system equipment.***

Signing/Lighting

As with the communications backbone, electrical trunk line conduits and junction boxes will be installed with the embankment and retaining wall construction in Work Areas 1 and 3, and installed underneath the WB bridge widened section in Work Area 2. Overhead sign structures, light poles, and luminaires are also planned for early procurement and delivery during Stages 1 and 2 allowing for immediate installation as soon as specific site areas have been prepared. Pulling of the electrical lines through the trunk line conduits will occur concurrent with the signing and lighting installations. As shown in our schedule, hanging of sign panels and lighting burn-in periods are scheduled to be completed well in advance of the completion milestones.

Stage 4 Interim Milestone and Final Surface Paving and Pavement Markings

As the Stage 3 work completes including roadwork, noise barriers, and installation of signage, lighting, and ITS systems, all MOT devices can be removed and traffic placed in final configuration with the exception of opening the new Express Lanes. The following list summarizes the plan for opening the roadway in each Area in coordination with the final activities and required Milestones for the Project:

- **Area 1** - Final milling, overlay, and surface pavement for both EB and WB can begin in the Fall of 2025 with the bulk of finish paving completed by the Spring of 2026. With the I-64 EB Bridge over Hampton River still under construction until mid-September 2026, traffic in Area 1 that occupies the EB crossover will remain on intermediate asphalt until the EB Bridge opens and the temporary crossovers are removed. Figure 4.6.1.23 depicts the final traffic configuration of Area 1 at approximately Station 708+00 where flex post delineators will be installed on EB lanes and Group II Drums will be left in place at weave/entry areas on WB to block entry to the new Express Lanes.

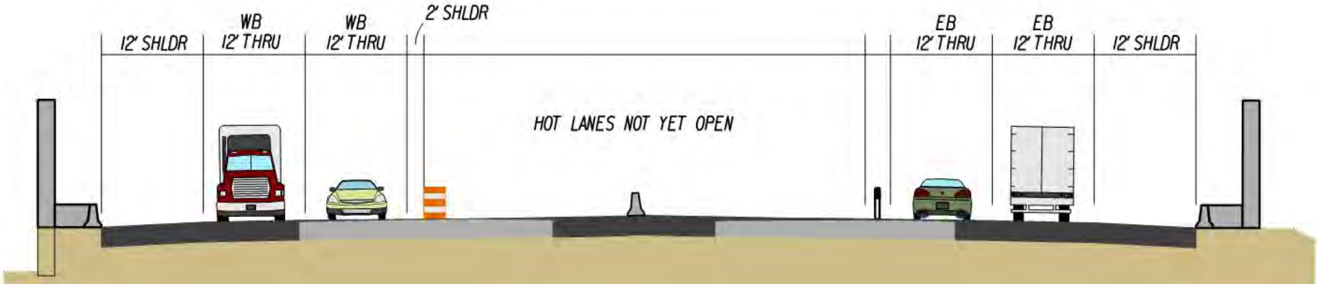


Figure 4.6.1.23 - Stage 4 Area 1 Final Configuration

- **Area 2** - Final pavement in Area 2 consists only of the 450' along EB lanes between the I-64 EB Bridge over Hampton River and the I-64 EB Bridge over East Branch. This work will be completed in Fall 2026 prior to the new bridges open to traffic.

- **Area 3** - Area 3 final paving will be completed in two mobilizations in order to satisfy the Interim Milestone requirements of the contract.
    - **Interim Milestone Overlap Area (East of I-64 Bridges over Settlers Landing Road)** - Final milling, overlay, and surface pavement for both EB and WB in this Area can begin in the Fall of 2025 with the completion of the final pavement surface by the Spring of 2026. With the completion of pavement and an allowance in our schedule of 5 weeks of punchlist/closeout activities, the Interim Milestone Work will deliver all lanes of I-64 EB and WB to the east of the I-64 Bridge over Settlers Landing Road open to traffic for safe and unrestricted use of the roadway. This includes all directional and regulatory signage including installation of flex post delineators to prevent motorists entering into the Express Lanes, permanent lane markings, removal of all temporary barriers and traffic control, and resolution of any non-compliance items for the Interim Milestone Work. ***Our Team will deliver the Interim Milestone by May 1, 2026, 61 days earlier than required by the RFP***. Figure 4.6.1.24 depicts the final traffic configuration in the Interim Milestone Area where flex post delineators will be installed on EB lanes and Group II Drums will be left in place at weave/entry areas on WB to block entry to the new Express Lanes.

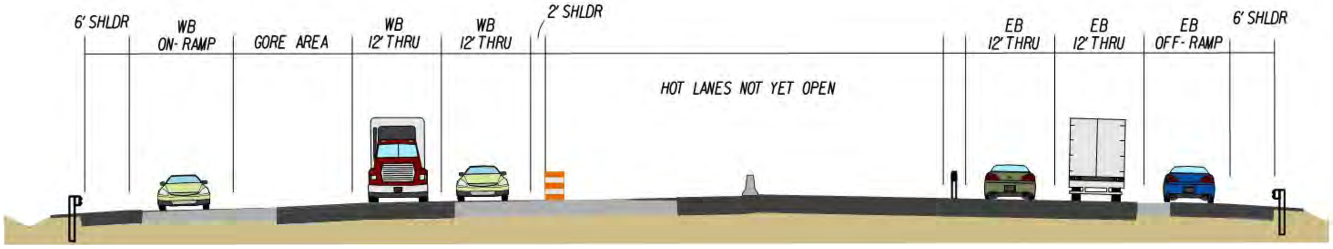


Figure 4.6.1.24 - Area 3 Final Configuration

- **Balance of Area 3 (East of the I-64 Bridge over East Branch to Settlers Landing Road)** Final pavement surface for both EB and WB will completed in this area in conjunction with the completion of the I-64 EB Bridges over Hampton River and East Branch as well as Area 2 paving described above. Completion of Area 2 and Area 3 final paving will occur in Fall 2026 with ***all new lanes open to traffic by the holiday season in late 2026***.

Critical Path

The critical path has been defined as the Longest Path and begins with NTP the preparation of the design for WB bridge, along with the Bridge over East Branch right after Notice to Proceed, which are needed for the preparation and approval of the of the JPA application and USCG Permit. Once approval the USCG permit is obtained, we can commence the widening of the WB Bridge over the Hampton River during Stage 2 followed by the critical activities on the EB Bridge over the Hampton River in Stage 3. Once this stage is completed, final surface paving and permanent pavement markings will take place followed by punchlist inspection and punchlist work, which will lead us to Final Completion. A detailed listing of Critical Path is as follows:

SCHEDULE MILESTONES

- Notice of Intent to Award
- CTB Approval/Notice to Award
- DB Contract Execution
- Notice to Proceed

Construction Key Dates

- Switch Traffic to Stage 3 Configuration-Area 2
- Switch Traffic to Stage 4 Configuration -Area 2
- Switch Traffic to Stage 4 Configuration -Area 3 Remainder

DESIGN

Final Design

Bridges Design

Westbound Bridges

Stage I- Preliminary Submissions

- Prepare Stage I- WB Bridge Reports/TS&Ls
- Submit Stage I - WB Prelim. Bridge Design
- VDOT/FHWA Review/Comment WB Bridge Prelim. Design

First Submission

- Prepare WB Bridge Plans (1st submission)
- Design QA/QC (1st Submission)
- Submit WB Bridge Plans (1st Submission)
- VDOT/FHWA Review/Comment WB Bridge Plans (1st Submission)

Eastbound Bridges

East Branch Hampton River Bridge

Stage I- Preliminary Submissions

- Prepare Stage I East Branch HR Bridge Reports/TS&Ls
- Submit Stage I Prelim. East Branch HR Bridge Design
- VDOT/FHWA Review/Comment East Branch HR Bridge Prelim. Design

First Submission

- Prepare East Branch HR Bridge Plans (1st Submission)
- Design QA/QC (1st Submission)

- Submit East Branch HR Bridge Plans (1st Submission 75% to 90%)
- VDOT/FHWA Review/Comment East Branch HR Bridge Plans (1st Submission)

Hampton River Bridge

Stage I- Preliminary Submissions

- Prepare Stage I- Hampton River Bridge Reports/TS&Ls
- Submit Stage I - Prelim. Hampton River Bridge Design
- VDOT/FHWA Review/Comment Prelimi. Hampton River Bridge Design

First Submission

- Prepare Hampton River Bridge Plans (1st Submission)
- Design QA/QC Hampton River Bridge (1st Submission)
- Submit Hampton River Bridge Plans (1st Submission 75% to 90%)
- VDOT/FHWA Review/Comment Hampton River Bridge Plans (1st Submission)

ENVIRONMENTAL PERMITTING

Wetlands and Waters Permitting

- Prepare Joint Permit Application for entire project
- Submit Joint Permit Application
- Initial Agency Review of JPA (USACE, DEQ, VMRC)
- DEQ Public Notice Period
- Final Agency Review of VDOT /JPA Final Approval
- JPA Environmental Permit Package Approved

U.S. Coast Guard Bridge Permit

- Prepare USCG Permit Application
- USCG Permit Approval
- Notice to Mariners
- USCG Permit Approved

CONSTRUCTION

Stage 2 - I-64 Reconstruct Median & 1st Phase of the Bridges

Area 2 - 721+13 to 748+22 (2,709 LF)

Westbound Bridge

WBL Bridge Widening

Mobilization

- Mobilization for WBL Bridge Production Piles

Piling Boxwood

- Drive Piles Bent 21 - WB
- Drive Piles Bent 22 - WB
- Drive Piles Bent 23 - WB

Bent Cap Boxwood

- F/R/P Bent Cap - Bent 21 - WB
- F/R/P Bent Cap - Bent 22 - WB
- F/R/P Bent Cap - Bent 23 - WB
- F/R/P Bent Cap - Bent 24 - WB

Cure - Bent Cap

- Cure Bent Cap - Bent 24 - WB

Girders Boxwood

- Erect Span v Girders - WB

Demo Deck Edge Boxwood

- Demo Deck Edge Span v - WB

Diaphragms Boxwood

- F/R Closure Diaphragm Bent 21 - WB
- F/R Closure Diaphragm Bent 22 - WB

Decks Boxwood

- F/R Span v - WB
- F/R Span w - WB
- F/R Span x - WB
- F/R Span y - WB
- F/R Span z - WB
- F/R Span aa - WB
- F/R Span ab - WB
- F/R Span ac - WB
- F/R Span ad - WB
- F/R Span ae - WB
- F/R Span af - WB
- F/R Span ag - WB
- F/R Span ah - WB
- F/R Span ai - WB

Decks East Branch Hampton River Bridge

- F/R Span aj - WB
- F/R Span ak - WB
- F/R Span al - WB

Decks River Street

- F/R Span a - WB
- F/R Span b - WB
- F/R Span c - WB
- F/R Span d - WB
- F/R Span e - WB
- F/R Span f - WB
- Place Deck Span d - WB
- Place Deck Span e - WB
- Place Deck Span f - WB
- Place Closure Bent 3 - WB
- Place Closure Bent 4 - WB
- Place Closure Bent 5 - WB

Decks Cure

- Cure Span d - WB
- Cure Span e - WB
- Cure Span f - WB

Barrier / Soundwall / Grooving / Stripe / Roadwork

- Place Barriers - Abutment A to Bent 9 (175+434=609’)
- Roadwork Closeout

Stage 3 - I-64 outside Widening / Noisewalls & 2nd Phase of Bridges

Area 2 - 721+13 to 748+22 (2,709 LF)

Eastbound Bridges

- Install EBL CROSSOVER - on WBL

EB Hampton River Bridge

Test Piles

- Drive Test Pile EBL Hampton River

Demolition Superstructure - Hampton River

- Demo Superstructure - Ex. Span 11W
- Demo Superstructure - Ex. Span 12W
- Demo Superstructure - Ex. Span 13W
- Demo Superstructure - Ex. Span 14W
- Demo Superstructure - Ex. Span 15W
- Demo Superstructure - Ex. Span 16W
- Demo Superstructure - Ex. Span 17W
- Demo Superstructure - Ex. Span 18E
- Demo Superstructure - Ex. Span 17E
- Demo Superstructure - Ex. Span 16E
- Demo Superstructure - Ex. Span 15E
- Demo Superstructure - Ex. Span 14E
- Demo Superstructure - Ex. Span 13E
- Demo Superstructure - Ex. Span 12E

Demolition Substructure - Hampton River

- Demo Ex. Bent 16W
- Demo Ex. Bent 16E
- Demo Ex. Bent 17W
- Demo Ex. Bent 17E
- Demo Ex. Bent 18W
- Demo Ex. Bent 18E
- Demo Ex. Bent 19W
- Demo Ex. Bent 19E
- Demo Ex. Bent 15W
- Demo Ex. Bent 15E
- Demo Ex. Bent 14W
- Demo Ex. Bent 14E
- Demo Ex. Bent 13W
- Demo Ex. Bent 13E

Piling River Street

- Drive Piles - Bent 3 HR
- Drive Piles - Bent 2 HR
- Drive Piles - Bent 1 HR

Piling Hampton River

- Drive Piles - Bent 9 HR
- Drive Piles - Bent 8 HR
- Drive Piles - Bent 7 HR
- Drive Piles - Bent 6 HR
- Drive Piles - Bent 5 HR
- Drive Piles - Bent 4 HR

Bent Cap

- F/R/P Footing - Bent 2 - HR
- F/R/P Footing - Bent 1 - HR
- F/R/P Columns - Bent 2 - HR
- F/R/P Columns - Bent 1 - HR
- F/R/P Bent Cap - Bent 2 HR
- F/R/P Bent Cap - Bent 1 HR

Abutments

- F/R/P Abutment A Footing - HR

- F/R/P Abutment A - Stem Wall & Seats & Wingwall
- F/R/P Abutment A - Integral Backwall
- Backfill Abutment A
- F/R/P Approach Slab Abutment A

Cure Abutments

- Cure Abutment A Footing - HR
- Cure Abutment A - Stem Wall & Seats
- Cure Abutment A - Integral Backwall
- Cure Approach Slab Abutment A

Barrier / Soundwall / Gooving / Stripe

- Roadwork Close out

Stage 4 - Final Pavement and Open Lanes

Area 2 - 721+13 to 748+22 (2,709 LF)

- Area 2- 2” SM-12.5D Shoulder Surface Asphalt I-64 Eastbound Lanes
- Area 2- 2” SMA-12.5” Surface Asphalt I-64 Eastbound Lanes
- Area 2- Permanent Pavement Markings and Recessed Pvmnt Markers EB
- Area 2- 2” SM-12.5D Shoulder Surface Asphalt I-64 Westbound Lanes
- Area 2- 2” SMA-12.5” Surface Asphalt I-64 Westbound Lanes
- Area 2- Permanent Pavement Markings and Recessed Pvmnt Markers WB

Area 3 - 748+22 TO 785+72 (3,750 LF)

- Area 3- 2” SM-12.5D Shoulder Surface Asphalt I-64 Eastbound Lanes
- Area 3- 2” SMA-12.5” Surface Asphalt I-64 Eastbound Lanes
- Area 3- 2” SM-12.5D Shoulder Surface Asphalt I-64 Westbound Lanes
- Area 3- 2” SMA-12.5” Surface Asphalt I-64 Westbound Lanes
- Area 3- Permanent Pavement Markings and Recessed Pvmnt Markers WB

SCHEDULE MILESTONES

- Project Ready for Punchlist Inspection
- VDOT Punchlist Inspection
- Final Completion

Key Scheduling Assumptions

- VDOT will review and approve Early Work packages as described.
- Environmental Permitting agencies will accept VDOT’s avoidance and minimization efforts taken during the RFP phase as sufficient to process permits without delay.
- There are no hazardous materials, threated or endangered species, or unforeseen environmental constrains, other than those in the RFP, that could delay the Schedule.
- Crews are based on 8-hour workday and 5-day workday calendar. A detailed description of the calendars is included in this narrative. However, crews will increase work hours as necessary to maintain schedule.
- Night-time work restrictions will not be imposed other than as described in the RFP.

Appendix

Attachment 4.0.1.1 - Technical Proposal Checklist

ATTACHMENT 4.0.1.1

I-64 HREL Segment 4C

TECHNICAL PROPOSAL CHECKLIST AND CONTENTS

Offerors shall furnish a copy of this Technical Proposal Checklist, with the page references added, with the Technical Proposal.

Technical Proposal Component	Form (if any)	RFP Part 1 Cross Reference	Included within page limit?	Technical Proposal Page Reference
Technical Proposal Checklist and Contents	Attachment 4.0.1.1	Section 4.0.1.1	no	Appendix
Acknowledgement of RFP, Revisions, and/or Addenda	Attachment 3.7 (Form C-78-RFP)	Sections 3.7, 4.0.1.1	no	Appendix
Letter of Submittal	NA	Sections 4.1		1
Letter of Submittal on Offeror's letterhead	NA	Section 4.1.1	yes	1
Identify the full legal name and address of Offeror	NA	Section 4.1.1	yes	1
Authorized representative's original signature	NA	Section 4.1.1	yes	1
Declaration of intent	NA	Section 4.1.2	yes	1
120 day declaration	NA	Section 4.1.3	yes	1
Point of Contact information	NA	Section 4.1.4	yes	1
Principal Officer information	NA	Section 4.1.5	yes	1
Interim Milestone and Final Completion Date(s)	NA	Section 4.1.6	yes	1
Any Unique Milestone dates introduced by the Offeror	NA	Section 4.1.7	yes	1
Proposal Payment Agreement or Waiver of Proposal Payment	Attachment 9.3.1 or 9.3.2	Section 4.1.8	no	Appendix
Certification Regarding Debarment Forms	Attachment 11.8.6(a) Attachment 11.8.6(b)	Section 4.1.9	no	Appendix
Commitment to achieving six (6%) DBE goal	NA	Section 4.1.10	no	1
Confirmation on commercial and professional registration	NA	Section 4.1.11	no	1

Technical Proposal Component	Form (if any)	RFP Part 1 Cross Reference	Included within page limit?	Technical Proposal Page Reference
requirements				
Offeror's Qualifications	NA	Section 4.2		2-3
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	yes	2
Organizational chart with any updates since the SOQ submittal clearly identifying the changes	NA	Section 4.2.1	yes	3
Organizational chart shall identify the names of the individuals selected for the positions of Deputy Key Personnel (if applicable), Environmental Compliance Manager and Contractor Incident Management Coordinator.	NA	Section 4.2.1	yes	3
Revised narrative when organizational chart includes updates since the SOQ submittal	NA	Section 4.2.1	yes	2
Design Concept	NA	Section 4.3		4-19
Conceptual Roadway Plans and description	NA	Section 4.3.1.1	yes	Volume II, 6-10
Conceptual Structural Plans and description	NA	Section 4.3.1.2	yes	Volume II, 11-19
Project Approach	NA	Section 4.4		20-34
Environmental Management	NA	Section 4.4.1	yes	20-24

ATTACHMENT 4.0.1.1

I-64 HREL Segment 4C

TECHNICAL PROPOSAL CHECKLIST AND CONTENTS

Technical Proposal Component	Form (if any)	RFP Part 1 Cross Reference	Included within page limit?	Technical Proposal Page Reference
Utilities	NA	Section 4.4.2	yes	24-28
Geotechnical	NA	Section 4.4.3	yes	28-30
Quality Assurance/ Quality Control (QA/QC)	NA	Section 4.4.4	yes	30-34
Construction of Project	NA	Section 4.5		35-59
Sequence of Construction	NA	Section 4.5.1	yes	35-54
11” x 17” graphics demonstrating proposed Sequence of Construction.	NA	Section 4.5.1	yes	37-39, 41
Transportation Management Plan	NA	Section 4.5.2	yes	54-59
11” x 17” graphics demonstrating proposed MOT for each phase of Sequence of Construction.	NA	Section 4.5.1	yes	37-39
Proposal Schedule	NA	Section 4.6		Section 4.6
Proposal Schedule	NA	Section 4.6	no	Volume II
Proposal Schedule Narrative	NA	Section 4.6	no	Section 4.6
Proposal Schedule in electronic format	NA	Section 4.6	no	✓

Attachment 3.6.7
List of Approved ATCs Included in Technical Proposal

ATTACHMENT 3.6.7
LIST OF APPROVED ATCs INCLUDED IN TECHNICAL PROPOSAL

OFFEROR:

List all approved ATCs included in the Technical Proposal along with the page number references from Technical Proposal.

ATC ID Number	ATC Name Description	Date ATC Approved	Technical Proposal Reference Page(s) #
01	Unique Design Solution to Avoid Conflict with the Widening of Pier 9 on the I-64 Bridge over Hampton River and the Existing Substructure for the East Pembroke Avenue Bridge over Hampton River	March 17, 2022	4, 5, 12, 14

By signing this document, the Offeror hereby confirms that they are agreeing to all conditions that may have accompanied the ATC approval(s). The Offerors shall make a note of RFP Part 4 Section 2.1.10

"If the Contract Documents incorporate any ATCs and Design-Builder, for whatever reason: (a) does not comply with one or more Department conditions of pre-approval for the ATC; (b) does not obtain required third-party approval for the ATC; or (c) fails to implement the ATC, then Design-Builder shall: (1) provide written notice thereof to Department; and (2) comply with the requirements in the Contract Documents that would have applied in the absence of such ATC. Such compliance shall be without any increase in the Contract Price or extension to the Contract Time(s). For the avoidance of doubt, Design-Builder shall not be entitled to any increase in the Contract Price or extension of the Contract Time(s) as a result of any delay, inability or cost associated with the acquisition of any property that may be required to implement any ATC".

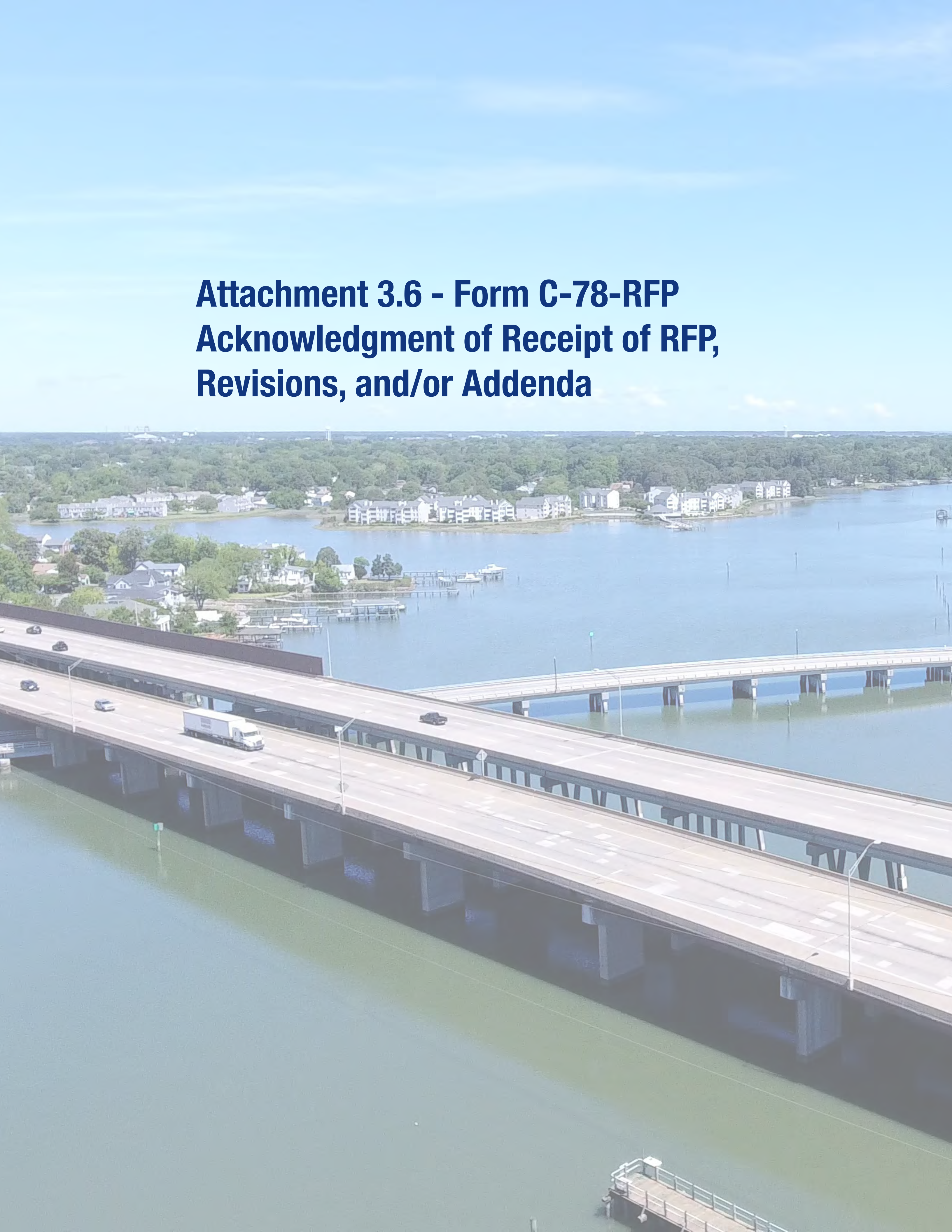
[Signature: Offerors POC or Principal Officer]

Garry A. Palleschi
[Printed Name]

Vice President
[Title]

DATE: May 12, 2022

Attachment 3.6 - Form C-78-RFP Acknowledgment of Receipt of RFP, Revisions, and/or Addenda



Form C-78-RFP

ATTACHMENT 3.7

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

RFP NO. **C00117841DB111**

PROJECT NO.: **0064-114-374 P101, R201, C501**

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 3.7, 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 10, 2021
(Date)
2. Cover letter of RFP Addendum #1 - December 17,2021
(Date)
3. Cover letter of RFP Addendum #2 - January 25, 2022
(Date)
4. Cover letter of RFP Addendum #3 – February 15, 2022
(Date)
5. Cover letter of RFP Addendum #4 – March 28, 2022
(Date)
6. Cover letter of RFP Addendum #5 – April 15, 2022
(Date)
7. Cover letter of RFP Addendum #6 – April 26, 2022
(Date)

SIGNATURE

May 12, 2022
DATE

Garry A. Palleschi
PRINTED NAME

Vice President
TITLE

Attachment 9.3.1 -
Proposal Payment Agreement

ATTACHMENT 9.3.1
PROPOSAL PAYMENT AGREEMENT

THIS PROPOSAL PAYMENT AGREEMENT (this "Agreement") is made and entered into as of this ____ day of _________, 20__, by and between the Virginia Department of Transportation ("VDOT"), and Shirley-Branch Joint Venture ("Offeror").

WITNESSETH:

WHEREAS, Offeror is one of the entities who submitted Statements of Qualifications ("SOQs") pursuant to VDOT's April 30., 2021 Request for Qualifications ("RFQ") and was invited to submit proposals in response to a Request for Proposals ("RFP") for the **I-64 Hampton Roads Express Lanes (HREL) Segment 4C, Project No.** 0064-114-374 P101, R201, C501 ("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 **Three Hundred Thousand and 00/100 Dollars ($300,000.00)** ("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] Shirley-Branch Joint Venture

By: ______________________________

Name: Gregory S. Smith

Title: President

Attachment 11.8.6 (a) & (b) - Certification Regarding Debarment Forms

ATTACHMENT 11.8.6(a)
CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project No.: 0064-114-374 P101, R201, C501

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.

	May 12, 2022	President
Signature	Date	Title

Shirley-Branch Joint Venture
Name of Firm

ATTACHMENT 11.8.6(a)
CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project No.: 0064-114-374 P101, R201, C501

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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.

JHall	May 12, 2022	Vice President
Signature	Date	Title

Shirley Contracting Company, LLC
Name of Firm

ATTACHMENT 11.8.6(a)
CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project No.: 0064-114-374 P101, R201, C501

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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.

Brian J. Evans 05/10/22 Senior Vice President
Signature Date Title

Branch Civil, Inc.
Name of Firm

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

Project No.: 0064-114-374 P101, R201, C501

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.

Dave Mahoney 4/27/2022 Executive Vice President
Signature Date Title

Dewberry Engineers Inc.
Name of Firm

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

Project No.: 0064-114-374 P101, R201, C501

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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.

4/28/2022 Chief Operating Officer

Signature Date Title

McLean Contracting Company

Name of Firm

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

Project No.: 0064-114-374 P101, R201, C501

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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.

G Stuart Mallett III, 4-29-22 Vice-President
Signature Date Title

STV Incorporated dba STV Group Incorporated
Name of Firm

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

Project No.: 0064-114-374 P101, R201, C501

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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.

4/28/2022
Signature Date

President
Title

Quinn Consulting Services, Inc.
Name of Firm

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

Project No.: 0064-114-374 P101, R201, C501

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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.

4/28/22 Vice President
Signature Date Title
Jon W. Ebbert

McCallum Testing Laboratories
Name of Firm

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

Project No.: 0064-114-374 P101, R201, C501

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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.

James R Wirt
Digitally signed by James R Wirt
Date: 2022.05.09 12:58:58 -04'00'

5/9/2022 — Vice President

Signature — Date — Title

ECS Mid-Atlantic, LLC

Name of Firm

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

Project No.: 0064-114-374 P101, R201, C501

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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.

DocuSigned by:
F. Munson
D830117A89C54AD...

04-27-2022

Vice President, General Counsel & Secretary

Signature Date Title

Surveying And Mapping, LLC

Name of Firm

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

Project No.: 0064-114-374 P101, R201, C501

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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.

Daniel Casey April 26, 2022 Director of Operations

Signature Date Title

Quantum Spatial, Inc. dba NV5 Geospatial

Name of Firm

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

Project No.: 0064-114-374 P101, R201, C501

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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.

James C. Wiggins

	04/28/2022	Chief Executive Officer
Signature	Date	Title

McCormick Taylor, Inc.
Name of Firm

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

Project No.: 0064-114-374 P101, R201, C501

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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.

4/29/22 President
Signature Date Title

Diversified Property Services, Inc.
Name of Firm

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

Project No.: 0064-114-374 P101, R201, C501

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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.

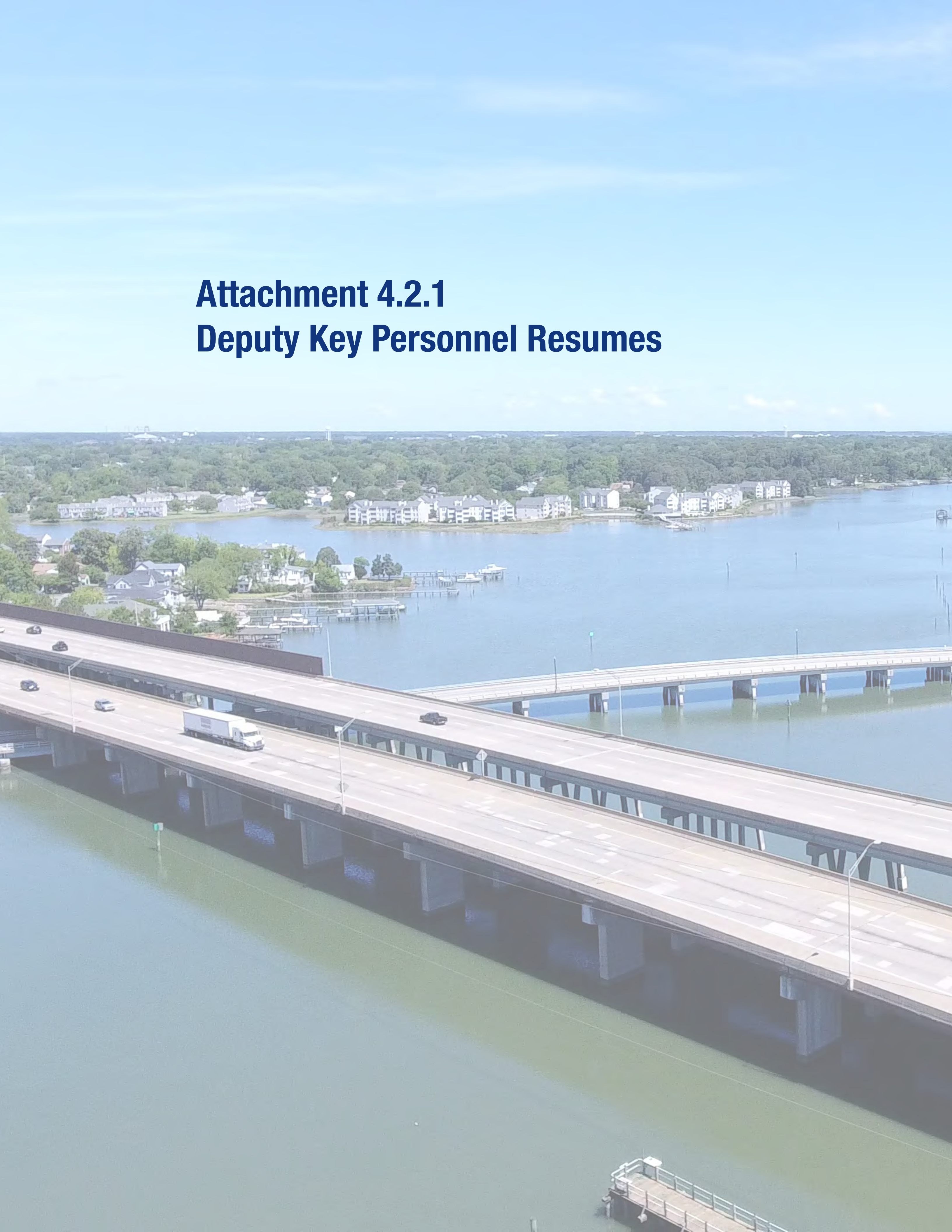
4-28-22 Vice President

Signature Date Title

Key Title, II

Name of Firm

Attachment 4.2.1
Deputy Key Personnel Resumes



ATTACHMENT 4.2.1

DEPUTY KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title: **Matthew (Matt) Tillotson, PE | Project Executive**

b. Project Assignment: **Deputy Design-Build Project Manager (DDBPM)**

c. Name of the Firm with which you are employed at the time of submitting Technical Propsal: **Branch Civil, Inc.**

d. Employment History: With this Firm 5 Years with Other Firms 11 Years

Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below):

Branch Civil, Inc.
Project Executive, 2022 – Present

Matt serves as the Field Operations/Construction Manager and Project Executive for Branch Civil, Inc.'s (Branch) operations. He leads and oversees all project management and construction activities for Branch's projects in the Hampton Roads, Virginia, and Northeast North Carolina areas. He reports directly to Branch's Senior Vice President of Operations. He is responsible for oversight and execution of projects, including managing key field staff during construction, staffing and resourcing, monitoring construction schedules, costs, and quality to ensure project goals are met. He maintains conformance with the corporate safety plan and federal and state safety requirements, defining and implementing quality assurance and quality control (QA/QC) protocols for projects, and ensures all projects are delivered successfully and on schedule.

Branch Civil, Inc.
Senior Project Manager, 2020 – 2021

Matt's general responsibilities included oversight and management of the company's construction activities on projects from start to finish. He managed the day-to-day construction process, contract administration, project management and QC processes to confirm that materials used, and work performed, met contract requirements and were in conformance with plans and specifications. He also coordinated with owner's representatives, third-party stakeholders, subcontractors, and vendors to maintain clear lines of communication among project stakeholders.

Branch Civil, Inc.
Project Manager, 2017-2019

While serving as Project Manager, Matt successfully managed and completed several transportation, industrial, and site development projects for Branch in Virginia's Hampton Roads, Richmond, and Roanoke markets. His project management responsibilities included contract administration, work scheduling, subcontractor and material procurement and management, client and stakeholder communications, and conformance to all self-perform and third-party QA/QC project protocols and contract requirements.

Comstock Holding Companies, Inc.
Land Development Project Manager, 2013-2017

Matt oversaw the design, entitlements, permitting, and execution of all site development activities on mixed-use and residential projects in Virginia, Maryland, and Washington, DC. He was responsible for obtaining all local and federal jurisdictional approvals for projects. He managed the project civil engineer, structural engineer, architect, and consultants during the site and project design, building permit process, and construction during all stages to ensure execution of all project goals while maintaining compliance with all jurisdictional approvals. He managed utility relocations and was the on-site QC Manager during the construction of projects for the company. During the construction phases of projects, he served as the on-site Construction Manager leading and overseeing all construction activities of the projects.

Metro Earthworks, a Division of Shirley Contracting Company, LLC
Project Manager, 2007-2013

Matt served as a Project Engineer, Assistant Project Manager, and Project Manager. He led and completed over 25 successful transportation, residential, commercial, and federal heavy civil construction projects in the Washington, DC metropolitan area as a prime contractor or subcontractor.

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
Virginia Polytechnic Institute & State University, Blacksburg, VA / BS / 2006 / Civil Engineering

f. Active Registration: Year First Registered/ Discipline/VA Registration #:
2012/ Professional Engineer/Virginia #0402050093
VDOT Erosion & Sediment Control Contractor Certification Program, Cert #4-00473, Exp. 02/28/27
Commonwealth of VA State Water Control Board, Responsible Land Disturber, Cert #RLD20718, Exp. 02/08/25

g. Document the extent and depth of your experience and qualifications relevant to the Project.

   1. *Note your role, responsibility, and specific job duties for each project, not those of the firm.*
   2. *Note whether experience is with current firm or with other firm.*
   3. *Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.*

(List only three (3) relevant projects for which you have performed a similar function. On-call contracts with multiple task orders (on multiple projects) should not be listed as a single project.

1. I-64 Southside Widening and High-Rise Bridge, Phase 1 Design-Build, Chesapeake, VA

Branch Civil, Inc., Construction Manager/Project Executive (2020 to Present)

Matt is currently serving as the Construction Manager and Project Executive for this project in the Hampton Roads District. Branch, working as a subcontractor to the D-B contractor, is performing earthwork, demolition, grading, BMP installations, storm drainage, and trench drain services. Matt oversees the day-to-day construction activities and leads all field and project management staff during the execution of the project. He ensures that all work is installed in conformance with the project's QC processes and operations are performed and phased in accordance with the "approved for construction" erosion and sediment control plans and specifications and adhere to all requirements of the project Storm Water Pollution Prevention Plan (SWPPP). He is responsible for all of Branch's workforce needs and leads the team to plan daily project activities. The project spans a seven-mile stretch of the heavily traveled I-64 interstate corridor in Chesapeake, VA, with several construction phases. Branch's work on the project requires over 500,000 CY of excavation to be moved using on-road dump trucks. Matt is responsible for managing the coordination and planning between Branch and the D-B contractor to ensure that work is performed safely, in compliance with state, federal, and VDOT safety requirements, and conforms to the *Virginia Work Area Protection Manual*.

2. US-17 Business/NC-37 Perquimans River Bridge Design-Build (NCDOT R-4467), Hertford, NC

Branch Civil, Inc., Construction Manager/Project Executive (2020 to Present)

Matt is currently serving as the Construction Manager and Project Executive for this project located in Hertford, NC, where Branch is a subcontractor to the D-B contractor and responsible for all roadway work. Branch's scope of work on the project includes the extension NCDOT US-17 Business and realignment of NC-37, the end bents for a new bridge over Perquimans River, MSE Walls, new utilities and relocations, storm drainage, earthwork, and demolition of the existing causeway over sensitive environmental protection areas. Matt is responsible for overseeing construction efforts and managing Branch's work on the project. Existing on-site conditions created challenges for the D-B team's construction of the end bent and new roadway improvements. Matt worked with the D-B contractor and its engineer to develop the necessary redesign of ground improvement plans which will allow the project to be completed on schedule.

3. VDOT B36 I-81 Auxiliary Lane Additions and Interstate Paving, Roanoke, VA

Branch Civil, Inc., Project Manager (2020 to 2020)

Matt served as Project Manager for Branch during the initial phases of construction of this project in the Salem District that included widening of NB and SB I-81 from approximately the I-581 interchange to Exit 141. He was responsible for the company's operations on the project, including contract administration, VDOT communications, schedule creation and updates, all project resources, hiring and staffing of the project workforce, conformance with all QA/QC protocols and contract requirements, compliance with all EEO project requirements, and prosecution of the work in conformance with the approved plans and specifications. The project included a Completion Incentive/Disincentive for substantial completion of all lanes of I-81 of the project open to the public. Matt successfully championed and led early project efforts, including early procurement of all subcontractors and vendors, early approval of material submittals, and workforce and resource planning development to allow for the project's early work to commence on schedule with urgency and purpose. Because of Matt's leadership efforts to re-sequence the schedule to optimize work availability in the early phases of the project, Branch was able to advance and complete multiple later schedule activities in 2020, ultimately earning the early substantial completion incentive for the project.

ATTACHMENT 4.2.1

DEPUTY KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title: **Matt Thomas, PE, Associate**

b. Project Assignment: **Deputy Design Manager (DDM)**

c. Name of the Firm with which you are employed at the time of submitting Technical Proposal: **Dewberry Engineers Inc.**

d. Employment History: With this Firm 17 Years With Other Firms 0 Years

Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below):

Dewberry Engineers Inc.; Project Manager/Design Manager, 2010-Present

Responsible for management of Dewberry's Richmond, Virginia roadway and drainage design staff and oversight of multiple transportation design projects. Management responsibilities include setting project schedules, developing agendas and attending progress meetings, and coordinating with agencies to gain environmental and construction permits. Project responsibilities include oversight of roadway plan development, signing and sealing plans for right-of-way acquisition and construction, coordination and direct communications with design sub-consultants, leading coordination of internal design disciplines including roadway, structural, stormwater management/water resources, and environmental staff, and implementation of design QC processes. During construction, responsibilities include communicating and coordinating directly with construction staff to respond to questions, distribute and review shop drawings, submittals, and RFIs, and serves as the single point of contact between Dewberry and the Client.

- **I-81 Widening MM 136.6 to 141.8 Design-Build** ($179M), 5/2021 to 1/2026 – Lead Roadway Engineer
- **Skiffes Creek Connector Design-Build** ($24.5M), 2/2020 to 10/2022 – Design Manager
- **Route 10 Widening** ($15.2M), 2/2018 to 10/2022 – Design Manager
- **I-64 Capacity Improvements – Segment III Design-Build** ($186M), 1/2018 to 12/2021 – Lead Roadway Engineer
- **I-64 Capacity Improvements – Segment I Design-Build** ($101M), 3/2015 to 12/2017 – Lead Roadway Engineer
- **I-64 Pavement Rehabilitation Design-Build** ($14.5M), 1/2014 to 11/2014 – Lead Roadway Engineer
- **I-64 Exit 91 Interchange Improvements Design-Build** ($21M), 10/2012 to 8/2015 – Lead Roadway Engineer
- **Fort Lee Roundabout Design-Build** ($2M), 12/2012 to 10/2013 – Lead Roadway Engineer
- **Route 29/Tye River Bridge Replacement Design-Build** ($7M), 1/2010 to 1/2012 – Lead Roadway Engineer

Dewberry Engineers Inc.; Project Engineer, 2005-2010

General responsibilities included setting horizontal and vertical roadway geometry, roadway plan development, coordination with other roadway, drainage, stormwater management/water resources, structural, and environmental staff. During construction, responsibilities included reviewing shop drawings, submittals, and RFIs.

- **Airport Connector Road Design-Build** ($32M), 1/2007 to 1/2009 – Lead Roadway Engineer
- **Route 659 Relocation** ($7M), 2/2006 to 1/2010 – Lead Roadway Engineer
- **Route 28 PPTA Improvements (Frying Pan Road Interchange)** ($21M), 12/2006 to 5/2010 – Lead Roadway Engineer
- **Route 15 Improvements** ($11M), 12/2005 to 10/2009 – Lead Roadway Engineer

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
Virginia Polytechnic Institute & State University, Blacksburg, VA / BS / 2005 / Civil Engineering

f. Active Registration: Year First Registered/ Discipline/VA Registration #:
2010 / Professional Engineer / Virginia #0402 046511

g. Document the extent and depth of your experience and qualifications relevant to the Project.

1. *Note your role, responsibility, and specific job duties for each project, not those of the firm.*
2. *Note whether experience is with current firm or with other firm.*
3. *Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.*

(List only three (3) projects for which you have performed a similar function. On-call contracts with multiple task orders (on multiple projects) should not be listed as a single project.

1. Skiffes Creek Connector Design-Build, James City County, Virginia

Dewberry Engineers Inc., Design Manager (2/2020 – Present)

As the DM for Shirley's $24.5 million Project, Matt oversaw all design activities and led design coordination efforts to ensure that roadway, structure, stormwater management, traffic, and environmental permitting elements were coordinated for the development of plans to construct 0.9 miles of a new two-lane roadway, including two new bridges. This project also included the design of two new traffic signals, several MSE walls, multiple ground mounted signs, and multiple stormwater management facilities. Matt was responsible for overseeing internal staff and subconsultants to coordinate all of these design elements. Matt led roadway and drainage staff to develop a vertical profile along Route 60 that corrected a substandard vertical curve and eliminated the need for complete replacement of the existing pavement that had recently been milled and overlaid. Matt also prepared and participated in public outreach efforts by developing content and participating in a virtual presentation. Throughout construction, Matt continues to participate in monthly owner meetings and provides construction support through RFI and submittal reviews.

2. I-64 Capacity Improvements, Segment III Design-Build, York County, Virginia

Dewberry Engineers Inc., Lead Roadway Engineer (1/2018 – 12/2021)

As the Lead Roadway Engineer for Shirley's $186 million Project, Matt was responsible for the development of the horizontal and vertical geometry of the roadway design to construct 8 miles of one lane widening and complete replacement of the existing two lanes in each direction of I-64, including the widening of two sets of bridges and complete replacement of one set of bridges over Queens Creek. He also worked with multiple Dewberry offices and subconsultants to ensure design disciplines were coordinated in their final designs. Matt worked closely with the Design Manager, Steve Kuntz, to develop agendas and facilitate weekly design coordination meetings. Matt also prepared the content and attended each of the public outreach meetings to explain and discuss the noise analysis process and results to the adjacent communities and impacted and benefitted property owners. Matt also participated in the monthly progress meetings and provided construction support services through RFI and submittal responses.

3. I-64 Capacity Improvements, Segment I Design-Build, Newport News, Virginia

Dewberry Engineers Inc., Lead Roadway Engineer (3/2015 – 12/2017)

As the Lead Roadway Engineer for Shirley's $101 million Project, Matt was responsible for the development of the horizontal and vertical geometry and roadway drainage to construct 5.5 miles of one lane widening and resurfacing of the existing two lanes in each direction on I-64, including the widening of two sets of bridges and complete replacement of one set of bridges. Due to the large size of the project, Matt managed staff from multiple offices and facilitated weekly internal design update meetings to ensure the design and deliverables were consistent across the offices. Matt also coordinated with the structural engineers, surveyors, traffic engineers, stormwater management engineers, and environmental staff to set internal schedules and develop submittal documents. During construction, Matt coordinated roadway and drainage related responses to questions, RFIs, submittals and shop drawing reviews. Matt was also responsible for the design of the added scope items for the strengthening of the outside shoulders from Fort Eustis Boulevard to the eastern project limits. The addition of this scope item was designed, constructed, and delivered on time for the original completion date of December 1, 2017.

ATTACHMENT 4.2.1

DEPUTY KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title: **Joseph "Perry" Wenger, PE**

b. Project Assignment: **Deputy Quality Assurance Manager**

c. Name of the Firm with which you are employed at the time of submitting Technical Proposal: **Quinn Consulting Services, Inc.**

d. Employment History: With this Firm **8** Years with Other Firms **0** Years

Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below):

Quinn Consulting Services, Inc.
Inspector/Assistant QAM , 2013-Present

Perry's responsibilities on design-build projects included monitoring contractor operations for compliance with contract documents, plans, VDOT Road and Bridge Specs, Standards and the MUTCD; and ensuring they are following the VDOT Construction Manual, Inspection Manual, and environmental, safety, and EEO guidelines/regulations. In addition, Perry is accustomed to reading and interpreting plans; performing materials testing; communicating with owners, contractors, and the general public; preparing field adjustments using mathematical calculations and engineering principles; and preparing and maintaining detailed project documentation including the Materials Notebook.

- **Skiffes Creek Connector Design-Build ($24M) –** 1/2020 to 7/2022 **–** Design-Build Project Manager
- **I-64 Capacity Improvements – Segment III Design-Build ($186M) –** 5/2019 to 12/2021 – Design-Build Project Manager, 1/2018 to 5/2019 – Deputy Design-Build Project Manager
- **I-64 Capacity Improvements – Segment I Design-Build ($101M) –** 3/2015 to 12/2017 – Senior Project Manager
- **Estimating Department – 8/2014 to 3/2015** – Senior Project Manager

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
Old Dominion University, Norfolk, VA / BS / 2012 / Civil Engineering

f. Active Registration: Year First Registered/ Discipline/VA Registration #:
2018/Professional Engineer/Maryland #53566, 2019/Professional Engineer/North Carolina #050113

g. Document the extent and depth of your experience and qualifications relevant to the Project.

1. *Note your role, responsibility, and specific job duties for each project, not those of the firm.*
2. *Note whether experience is with current firm or with other firm.*
3. *Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.*

(List only three (3) relevant projects for which you have performed a similar function. On-call contracts with multiple task orders (on multiple projects) should not be listed as a single project.

1. Replacement of Fort Eustis Blvd Bridges over Lee Hall Reservoir – Newport News, Virginia
Quinn Consulting Services, Inc., Level II Inspector (4/2021 to 3/2022)

Perry served as a Level II inspector and aided the EFLHD with inspection of all elements of this $13.5 Million bridge replacement project. Perry's role included inspection of all elements of the project including but not limited to; demolition, pile driving, setting of pre-stressed concrete girders, bridge deck placement, E&S Controls, MOT, earthwork, asphalt placement and construction of temporary trestle work structures. Perry worked closely with the contractor, City of Newport News, FHWA, and other project stake holders to schedule inspections and review inspection findings. Perry's duties also included creation of a complete set of inspection records to give a factual representation of all inspections performed and the results/findings of those inspections. The project consisted of 2-phase demolition of the existing 16 span, 657' long bridge and construction of a new 9 span, 676' long bridge as well as reconstruction of approx. 650' of roadway on each side of the bridge. Abutment A of the new bridges was built on an existing earthen dam that required special consideration for construction methods and design criteria to ensure there was no failure along the reservoir.

2. I-64 Capacity Improvements – Segment III Design-Build – York County, Virginia

Quinn Consulting Services, Inc., Assistant QAM/Lead Inspector (5/2019 to 4/2021)

Perry performed inspection of bridge elements including piles, abutments, piers, beam placement, stay-in-place metal deck forms, bridge deck rebar and concrete, and parapet walls in addition to his inspection of roadway elements and incidental items as needed throughout the project. Perry also assisted the QAM by monitoring frequency of testing for QC and QA, keeping track of pile summaries, quantity take-offs, assisted with the Materials Notebook, reviewed inspection reports for accuracy, and monitored correction of non-conforming work and deficiencies. The Project included widening I-64 from approximately 1.15 miles west of Route 199 (Exit 234), to 1.05 miles west of Route 199, (Exit 242), extending the three-lane section of I-64 segment II west for approximately 8.2 miles. The improvements include adding a 12-ft-wide travel lane and a 2’ wide shoulder in each direction, pavement reconstruction of the existing lanes, repair and widening of four bridges, three major culverts, and replacement of the two Queens Creek bridges. The I-64 East off-ramp to Route 143 was reconstructed and a signalized stop was installed at the end of the ramp. The Project also included sound wall installation, drainage improvements, storm water management facilities, sign structure replacements, corridor-wide landscaping, maintenance of traffic, work zone traffic control, and environmental monitoring.

3. I-64 Capacity Improvements – Segment I Design-Build – Newport News, Virginia

Quinn Consulting Services, Inc., QA Inspector (1/2016 to 4/2017)

Perry performed daily inspections of bridge construction, existing paint removal and replacement on steel structures, concrete, compaction of soils, aggregate placement, and temporary shoring piles; preparation of Inspection Daily Reports (IDRs); and verification of proper installation and effectiveness of erosion and sediment controls on the job site. Perry also performed QA Materials testing to be used to verify that Quality Control field test results were within the range of specifications. The Project involved widening of I-64 from four lanes to six lanes in each direction between Jefferson Avenue (Exit 255) and Yorktown Road (Exit 247). One 12-foot-wide travel lane and one 12’ wide shoulder lane were added in each direction to provide immediate congestion relief. The Project also included widening/repairing the existing I-64 bridges over both Fort Eustis Blvd and the Lee Hall Reservoir as well as the complete replacement of the bridges over Industrial Park Drive.

ELECTRONIC COPY

VOLUME II DESIGN CONCEPT

Response to Request for Proposals

I-64 HAMPTON ROADS EXPRESS LANES (HREL) SEGMENT 4C

City of Hampton, Virginia

State Project No.: 0064-114-374 P101, R201, C501
Contract ID Number: C00117841DB111

May 12, 2022

Submitted By: Shirley-Branch Joint Venture

SHIRLEY CONTRACTING COMPANY, LLC
BRANCH CIVIL
Dewberry
McLean
STV 100 Years

4.3.1 - Conceptual Roadway Plans

TYPICAL SECTIONS

STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
VA.	64	0064-114-374	2A(1)

I-64 WB (GS-INT)

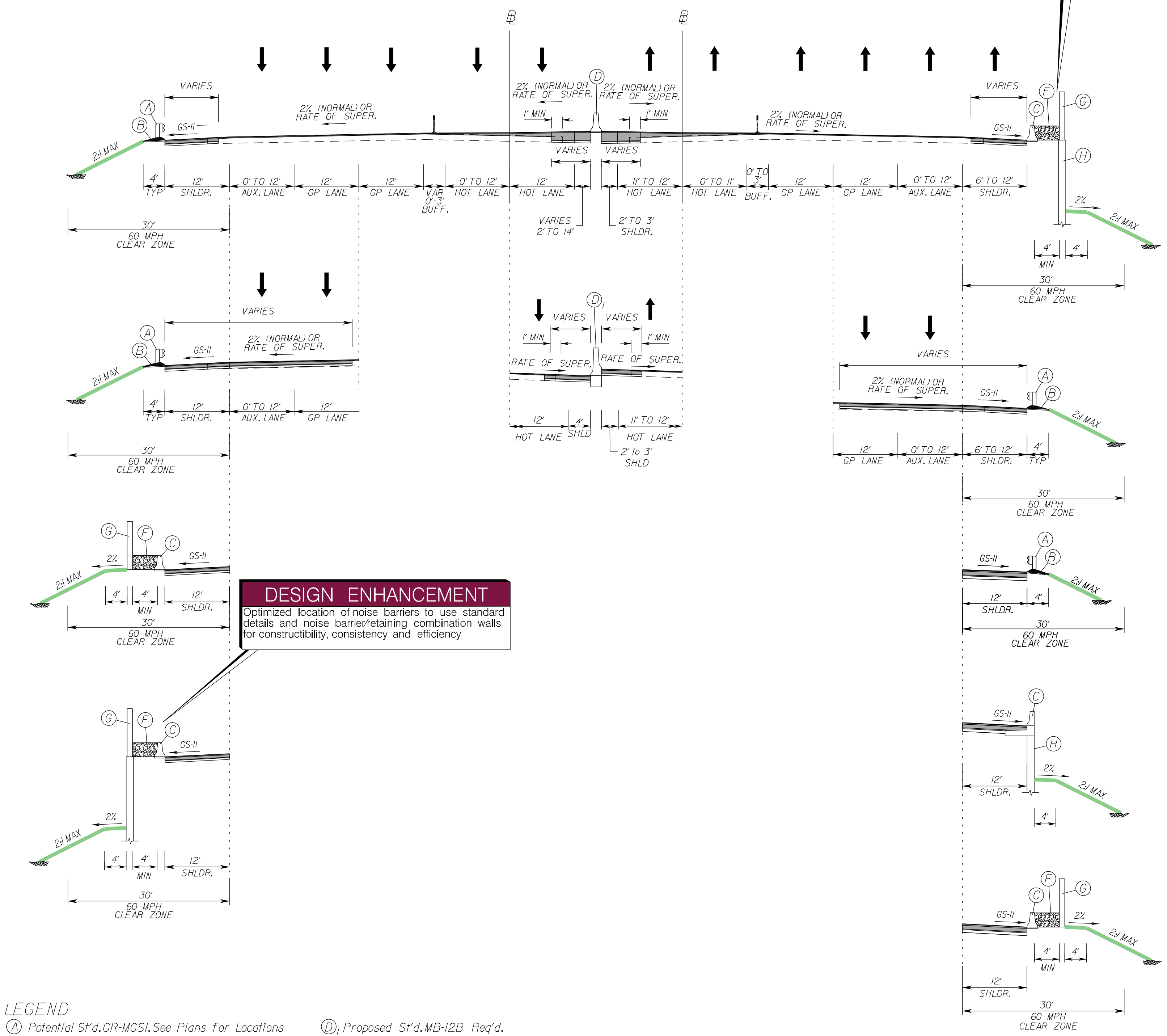
STA.1658+76.04 TO 1715+47.13
STA.1757+28.80 TO 1786+41.77

I-64 EB (GS-INT)

STA.658+75 TO 715+25
STA.756+75 TO 785+75

DESIGN ENHANCEMENT

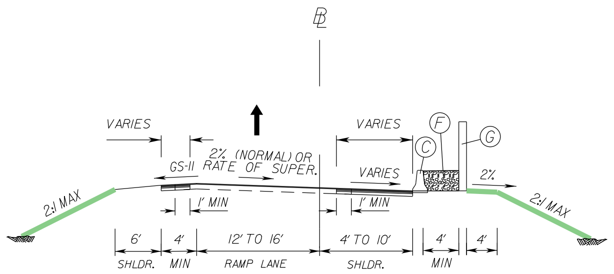
Optimized location of noise barriers to use standard details and noise barrier/retaining combination walls for constructibility, consistency and efficiency



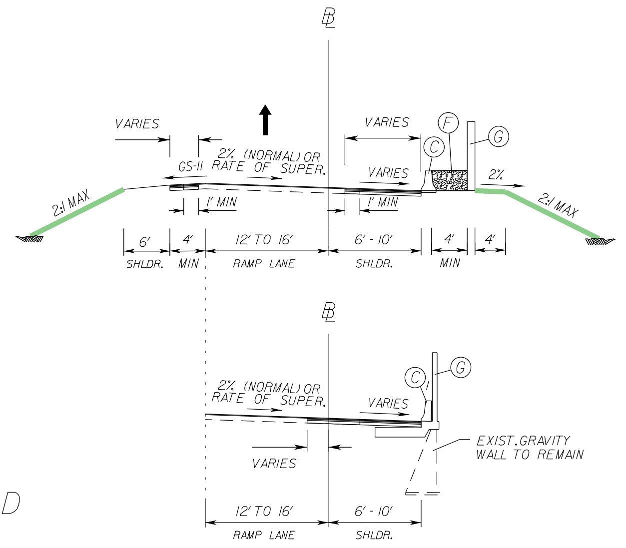
DESIGN ENHANCEMENT

Optimized location of noise barriers to use standard details and noise barrier/retaining combination walls for constructibility, consistency and efficiency

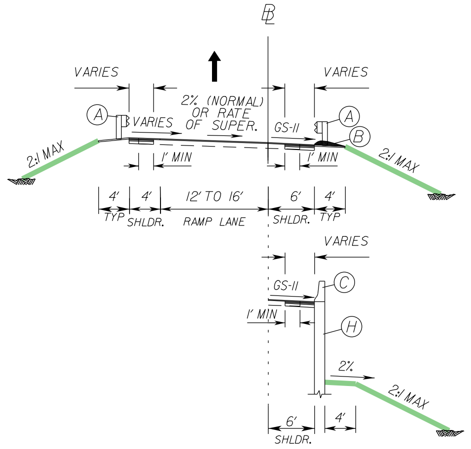
WB OFF RAMP TO ARMISTEAD AVE (GS-R)



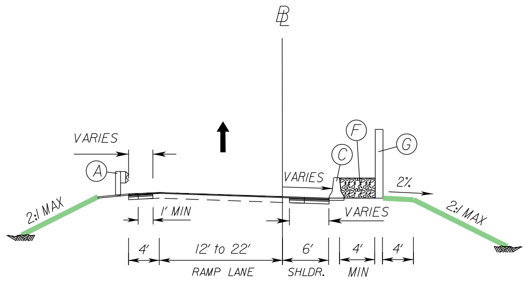
WB OFF RAMP TO SETTLERS LANDING RD (GS-R)



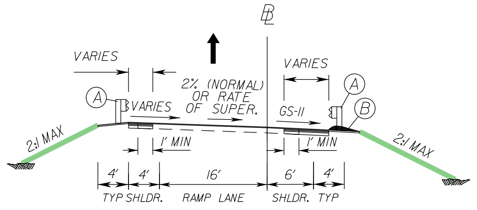
EB ON RAMP FROM SETTLERS LANDING RD (GS-R)



EB OFF RAMP TO RIP RAP RD (GS-R)



WB ON RAMP FROM SETTLERS LANDING RD
WB ON RAMP FROM MALLORY ST
(GS-R)



LEGEND

- Ⓐ Potential St'd.GR-MGS1.See Plans for Locations
- Ⓑ Potential St'd.MC-3B.See Plans For Locations
- Ⓒ Proposed St'd.MB-7D Req'd.
- Ⓒ1 Proposed St'd.MB-7F Req'd.
- Ⓓ Proposed St'd.MB-12A Req'd.
- Ⓓ1 Proposed St'd.MB-12B Req'd.
- Ⓔ Proposed St'd.MB-13 Req'd.
- Ⓕ VDOT St'd. No. 78 Stone
- Ⓖ Potential Noise Barrier
- Ⓗ Potential Retaining Wall

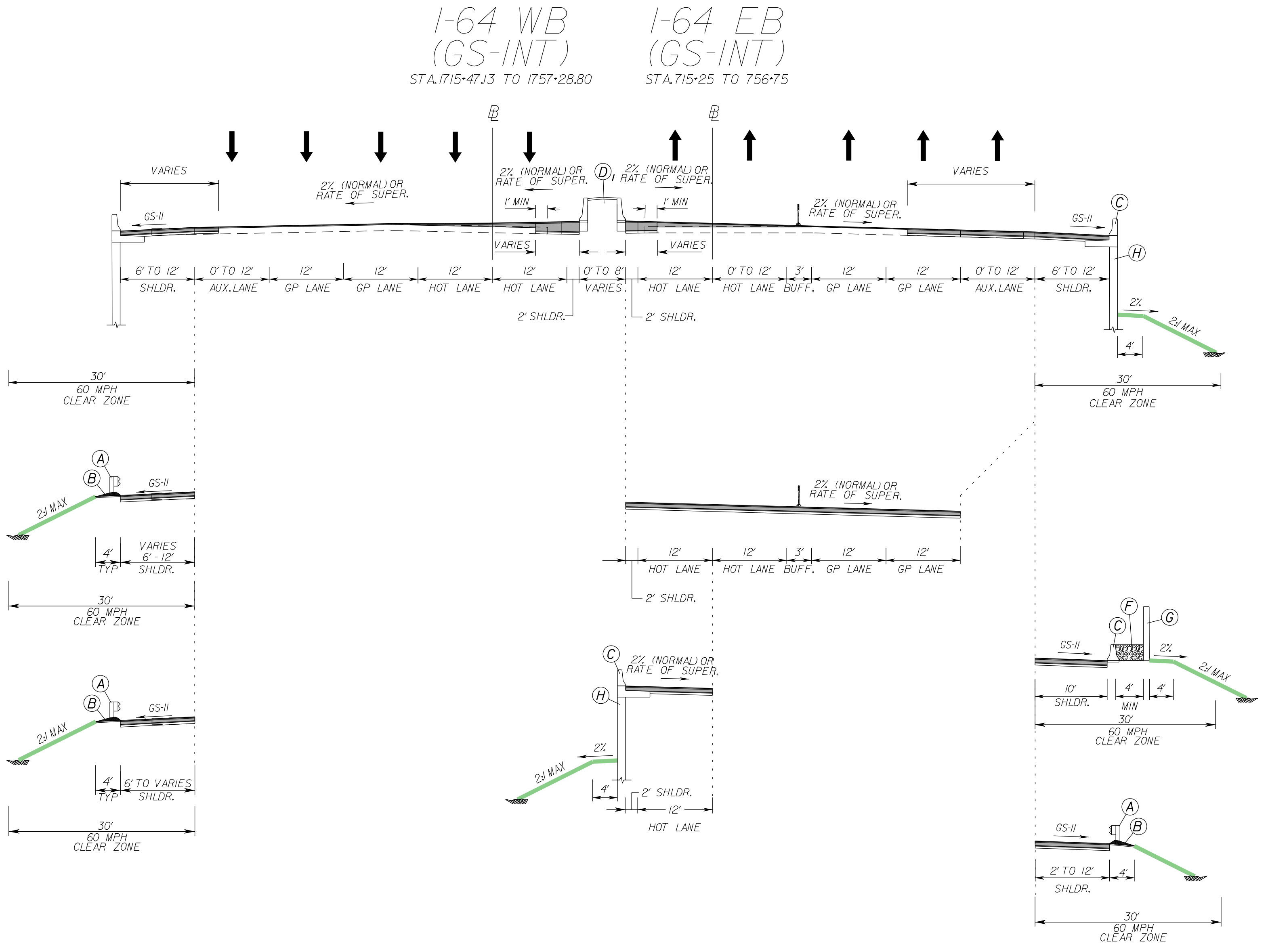
▨ Proposed Asphalt Pavement

🟩 Denotes Proposed Grass Median/Buffer/Planted Area

NOT TO SCALE	PROJECT	SHEET NO.
	0064-114-374	2A(1)

TYPICAL SECTIONS AND CURVE DATA

STATE	ROUTE	STATE PROJECT	SHEET NO.
VA.	64	0064-114-374	2A(2)



Curve No.	Location		Delta	Degree	Radius (Ft.)	Tangent (Ft.)	Length (Ft.)	E (Ft./Ft.)	V (mph)
EB64_01	PC Sta. PI Sta. Pt Sta.	657+87.89 664+23.76 670+39.10	25°10'18.17" (Rt.)	2°00'42.00"	2,848.00	635.87	1,251.21	0.034	60
EB64_02	PC Sta. PI Sta. Pt Sta.	679+16.86 681+46.60 683+75.64	7°41'02.02" (Rt.)	1°40'29.00"	3,421.00	229.74	458.79	0.032	60
EB64_03	PC Sta. PI Sta. Pt Sta.	689+80.83 690+52.59 691+24.36	0°24'40.23" (Rt.)	0°17'11.00"	20,000.00	71.76	143.53	NC	60
EB64_04	PC Sta. PI Sta. Pt Sta.	702+38.70 704+14.32 705+89.63	5°52'33.04" (Rt.)	1°40'28.00"	3,422.00	175.62	350.94	0.032	60

Curve No.	Location		Delta	Degree	Radius (Ft.)	Tangent (Ft.)	Length (Ft.)	E (Ft./Ft.)	V (mph)
EB64_05	PC Sta. PI Sta. Pt Sta.	715+47.81 718+74.90 721+94.10	21°46'56.51" (Rt.)	3°22'13.00"	1,700.00	327.10	646.30	0.040	60
EB64_06	PC Sta. PI Sta. Pt Sta.	739+46.34 743+51.46 747+41.75	26°48'28.20" (Rt.)	3°22'13.00"	1,700.00	405.12	795.40	0.040	60
EB64_07	PC Sta. PI Sta. Pt Sta.	753+08.31 754+04.86 755+01.37	2°43'50.08" (Lt.)	1°24'52.00"	4,051.00	96.55	193.06	0.029	60
EB64_08	PC Sta. PI Sta. Pt Sta.	768+86.91 774+15.81 779+21.37	29°25'11.57" (Rt.)	2°50'38.00"	2,014.63	528.90	1,034.46	0.038	60
EB64_09	PC Sta. PI Sta. Pt Sta.	784+12.59 791+00.25 797+28.76	40°59'03.03" (Lt.)	3°06'50.00"	1,840.00	687.66	1,316.17	0.040	60
WB64_01	PC Sta. PI Sta. PCC Sta.	1657+97.40 1658+68.38 1659+39.33	3°00'42.29" (Rt.)	2°07'19.00"	2,700.00	70.98	141.93	0.034	60
WB64_02	PCC Sta. PI Sta. Pt Sta.	1659+39.33 1665+03.51 1670+53.60	22°09'35.87" (Rt.)	1°59'19.00"	2,881.00	564.18	1,114.27	0.034	60
WB64_03	PC Sta. PI Sta. Pt Sta.	1679+16.55 1681+52.10 1683+86.92	7°48'01.39" (Rt.)	1°39'30.00"	3,455.00	235.55	470.37	0.032	60
WB64_04	PC Sta. PI Sta. Pt Sta.	1702+85.00 1704+34.86 1705+84.46	5°52'33.04" (Rt.)	1°57'44.00"	2,920.00	149.86	299.45	0.034	60
WB64_05	PC Sta. PI Sta. PCC Sta.	1716+11.82 1718+43.52 1720+72.37	15°31'19.74" (Rt.)	3°22'13.00"	1,700.00	231.69	460.55	0.040	60
WB64_06	PCC Sta. PI Sta. Pt Sta.	1720+72.37 1721+72.89 1722+73.21	6°15'53.76" (Rt.)	3°07'10.00"	1,836.74	100.52	200.84	0.040	60
WB64_07	PC Sta. PI Sta. Pt Sta.	1739+84.00 1743+72.81 1747+47.57	26°31'43.38" (Rt.)	3°28'29.00"	1,648.89	388.70	763.46	0.040	60
WB64_08	PC Sta. PI Sta. Pt Sta.	1755+16.14 1756+25.02 1757+33.87	2°27'22.24" (Lt.)	1°07'41.00"	5,079.00	108.88	217.73	0.026	60
WB64_09	PC Sta. PI Sta. Pt Sta.	1769+40.71 1774+76.90 1779+89.49	29°22'42.87" (Rt.)	2°48'04.00"	2,045.38	536.19	1,048.77	0.038	60
WB64_10	PC Sta. PI Sta. Pt Sta.	1784+63.82 1791+47.41 1797+72.84	40°45'40.95" (Lt.)	3°06'50.00"	1,840.00	683.58	1,309.01	0.040	60
EXIT ARM_01	PC Sta. PI Sta. PCC Sta.	12+67.09 15+71.48 18+71.94	15°56'49.67" (Lt.)	2°38'12.00"	2,173.15	304.39	604.85	0.034	35
EXIT ARM_02	PCC Sta. PI Sta. PRC Sta.	18+71.94 20+29.48 21+86.79	5°47'02.91" (Lt.)	1°50'14.00"	3,118.48	157.54	314.82	0.022	35
EXIT ARM_03	PRC Sta. PI Sta. PCC Sta.	21+86.76 23+00.89 24+11.49	24°40'44.90" (Rt.)	10°58'54.00"	521.74	114.14	224.73	0.038	35
EXIT ARM_04	PCC Sta. PI Sta. Pt Sta.	24+11.49 24+50.39 24+88.58	19°06'24.95" (Rt.)	24°47'06.00"	231.17	38.91	77.09	0.040	35
EXIT RIPRAP_01	PC Sta. PI Sta. Pt Sta.	10+00.00 11+51.53 13+01.91	12°16'05.48" (Rt.)	4°03'49.00"	1,410.00	151.53	301.91	0.027	35
EXIT SETTLERS EB_01	PC Sta. PI Sta. PCC Sta.	10+00.00 10+57.63 11+14.24	18°42'05.85" (Rt.)	16°22'13.00"	350.00	57.63	114.24	0.033	25
EXIT SETTLERS EB_02	PCC Sta. PI Sta. Pt Sta.	11+14.24 12+73.95 14+10.36	53°12'21.14" (Rt.)	17°58'04.00"	318.88	159.70	296.12	0..034	25
ENTR SETTLERS EB_01	PC Sta. PI Sta. Pt Sta.	13+47.82 16+00.40 18+46.77	21°59'25.83" (Rt.)	4°24'27.00"	1,300.00	252.58	498.95	0.021	25
ENTR SETTLERS WB_01	PC Sta. PI Sta. Pt Sta.	15+18.03 17+47.84 19+75.65	13°06'35.96" (Rt.)	2°51'53.00"	2,000.00	229.82	457.62	0.023	35
EXIT SETTLERS WB_01	PC Sta. PI Sta. PRC Sta.	10+00.00 11+71.33 13+42.53	3°55'30.55" (Rt.)	1°08'45.00"	5,000.00	171.33	342.53	0.038	25
EXIT SETTLERS WB_02	PRC Sta. PI Sta. Pt Sta.	13+42.53 15+63.08 17+83.60	1°33'04.33" (Lt.)	0°21'06.00"	16,291.20	220.54	441.06	NC	25
ENTR MALLORY WB_01	PC Sta. PI Sta. PCC Sta.	11+52.44 12+56.44 13+59.24	14°59'23.27" (Rt.)	7°14'55.00"	790.44	103.99	206.80	0.025	25
ENTR MALLORY WB_02	PCC Sta. PI Sta. PCC Sta.	13+59.24 14+62.65 15+64.26	18°30'12.60" (Rt.)	9°01'31.00"	634.83	103.41	205.02	0.027	25
ENTR MALLORY WB_03	PCC Sta. PI Sta. Pt Sta.	15+64.26 16+41.77 17+18.26	16°02'34.84" (Rt.)	10°25'03.00"	550.00	77.51	154.00	0.028	25

LEGEND

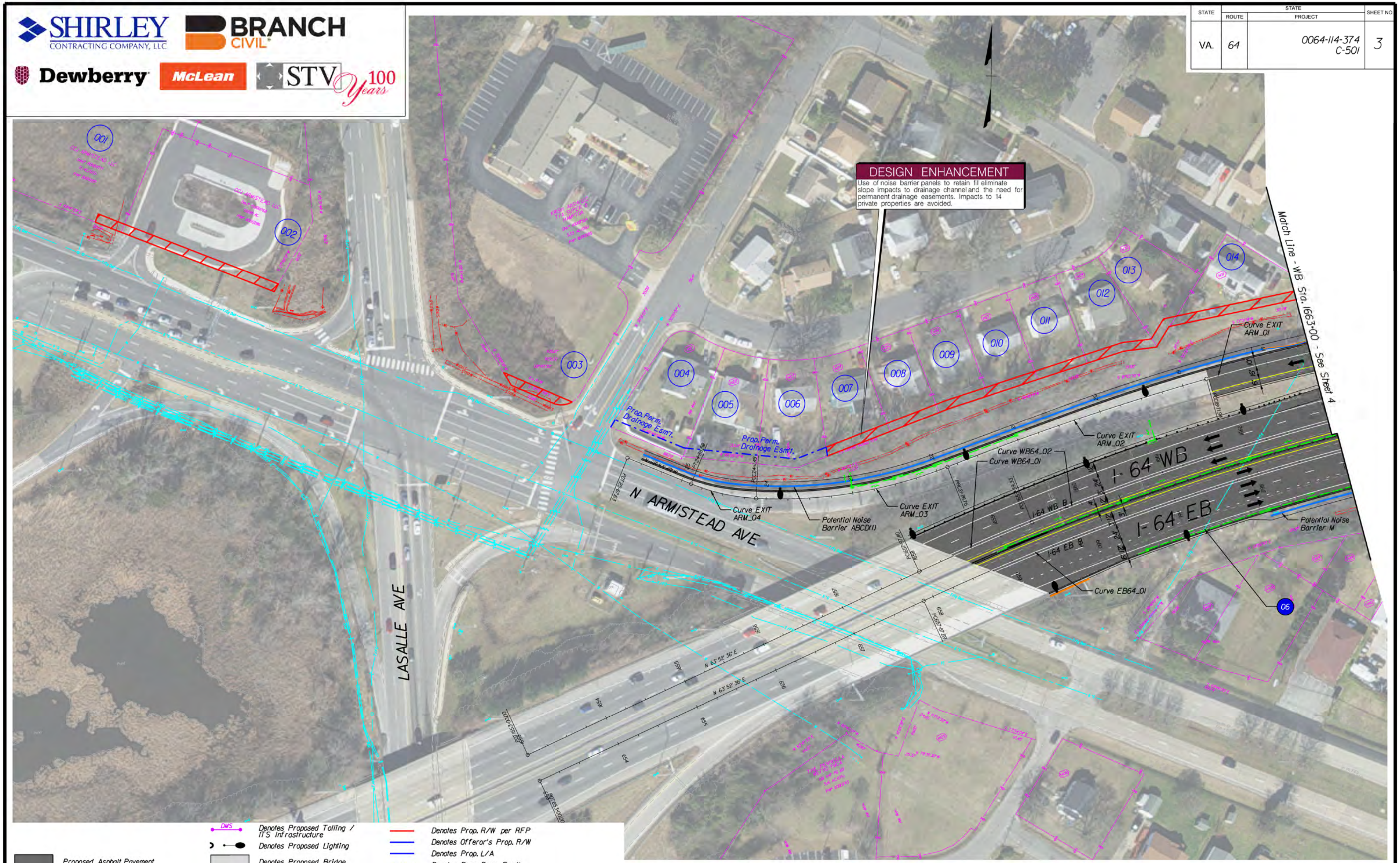
Ⓐ Potential St'd.GR-MGS1.See Plans for Locations
Ⓑ Potential St'd.MC-3B.See Plans For Locations
Ⓒ Proposed St'd.MB-7D Req'd.
Ⓒ1 Proposed St'd.MB-7F Req'd.
Ⓓ Proposed St'd.MB-12A Req'd.
Ⓓ1 Proposed St'd.MB-12B Req'd.
Ⓔ Proposed St'd.MB-13 Req'd.
Ⓕ VDOT St'd. No. 78 Stone
Ⓖ Potential Noise Barrier
Ⓗ Potential Retaining Wall

▨ Proposed Asphalt Pavement

🟩 Denotes Proposed Grass Median/ Buffer/Planted Area

NOT TO SCALE	PROJECT	SHEET NO.
	0064-114-374	2A(2)

STATE	ROUTE	STATE PROJECT	SHEET NO.
VA.	64	0064-114-374 C-501	3



DESIGN ENHANCEMENT

Use of noise barrier panels to retain fill eliminate slope impacts to drainage channel and the need for permanent drainage easements. Impacts to 14 private properties are avoided.

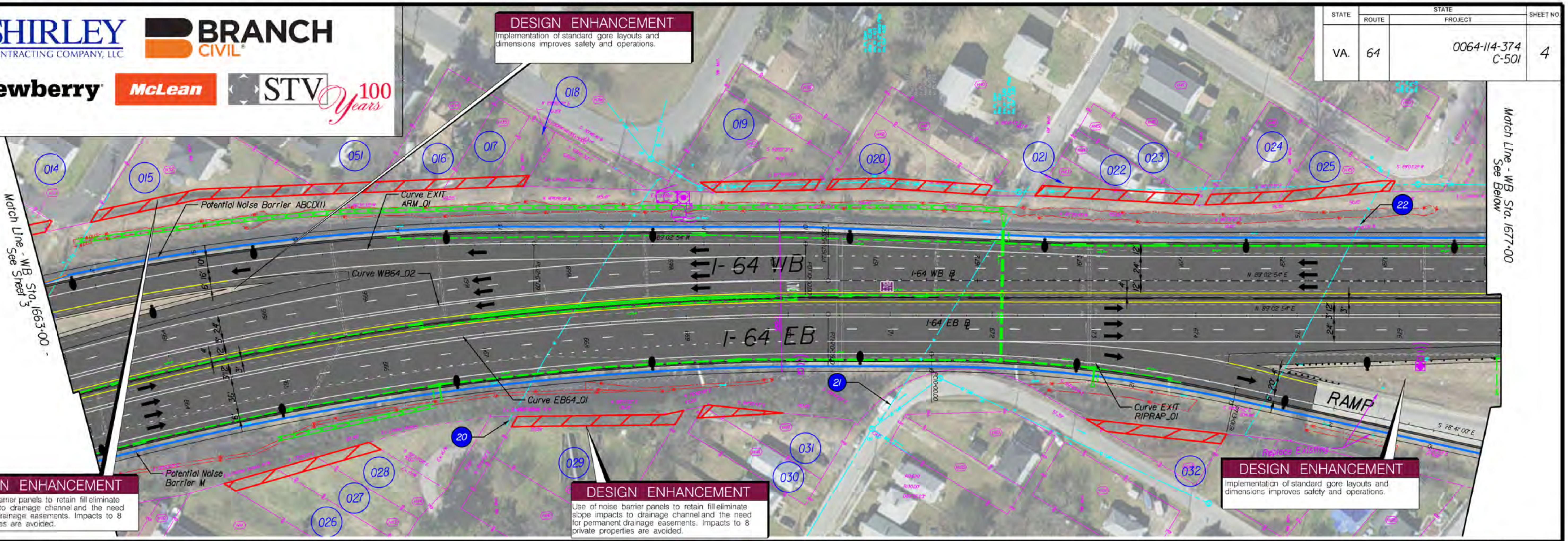
▆	Proposed Asphalt Pavement
🟩	Denotes Proposed Grass Median/ Buffer/Planted Area
▨	Proposed Gravel
DMS	Denotes Proposed Tolling / ITS Infrastructure
●	Denotes Proposed Lighting
▭	Denotes Proposed Bridge
☐	Denotes Demolition of Pavement
▨	Denotes Area of R/W or Esm't Reduction
—	Denotes Prop. R/W per RFP
—	Denotes Offeror's Prop. R/W
—	Denotes Prop. L/A
- · -	Denotes Prop. Perm. Esm't.
- · · -	Denotes Temp. Esm't.
- -	Denotes Exist. R/W
—	Exist. Utilities
—	Denotes Potential Retaining Wall
—	Denotes Potential Noise Barrier
—•—•—	Denotes Prop. Guardrail
● X	Denotes Utility Mitigation Strategy. See Volume I - Section 4.4.2
➡	Denotes Prop. Travel Lane

See Sheet 2A(2) for Curve Data

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-114-374	3

SHIRLEY CONTRACTING COMPANY, LLC
BRANCH CIVIL
Dewberry
McLean
STV 100 Years

STATE	ROUTE	STATE PROJECT	SHEET NO.
VA.	64	0064-114-374 C-501	4

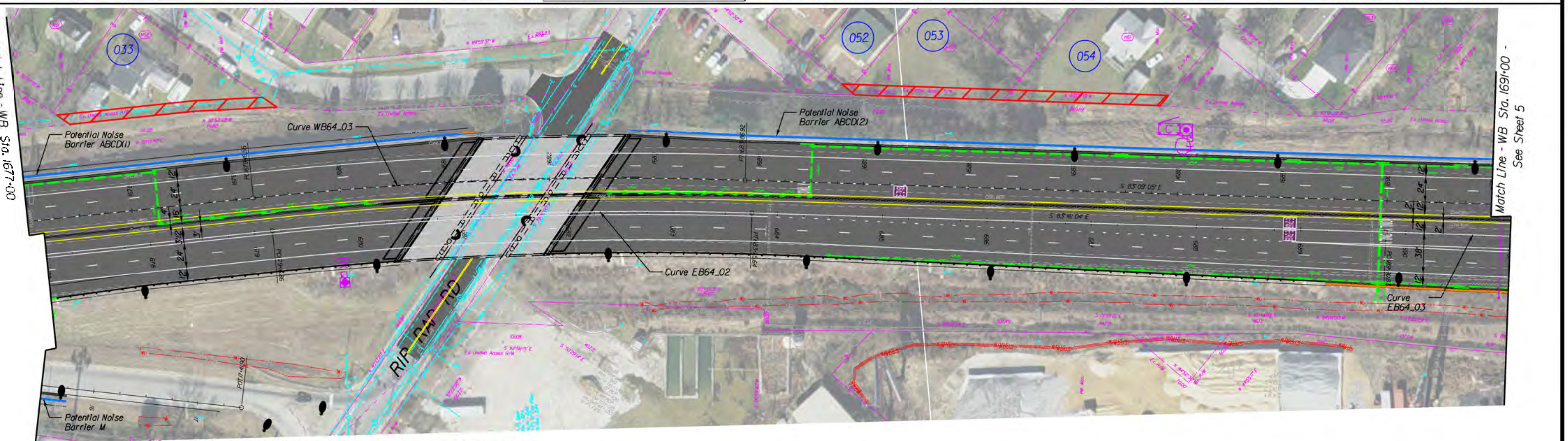


DESIGN ENHANCEMENT
Implementation of standard gore layouts and dimensions improves safety and operations.

DESIGN ENHANCEMENT
Use of noise barrier panels to retain fill eliminate slope impacts to drainage channel and the need for permanent drainage easements. Impacts to 8 private properties are avoided.

DESIGN ENHANCEMENT
Use of noise barrier panels to retain fill eliminate slope impacts to drainage channel and the need for permanent drainage easements. Impacts to 8 private properties are avoided.

DESIGN ENHANCEMENT
Implementation of standard gore layouts and dimensions improves safety and operations.



▬	Proposed Asphalt Pavement
🟩	Denotes Proposed Grass Median/ Buffer/Planted Area
▨	Proposed Gravel
DMS	Denotes Proposed Tolling / ITS Infrastructure
●	Denotes Proposed Lighting
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—·—	Denotes Prop. Guardrail
X	Denotes Utility Mitigation Strategy, See Volume I - Section 4.4.2
➡	Denotes Prop. Travel Lane

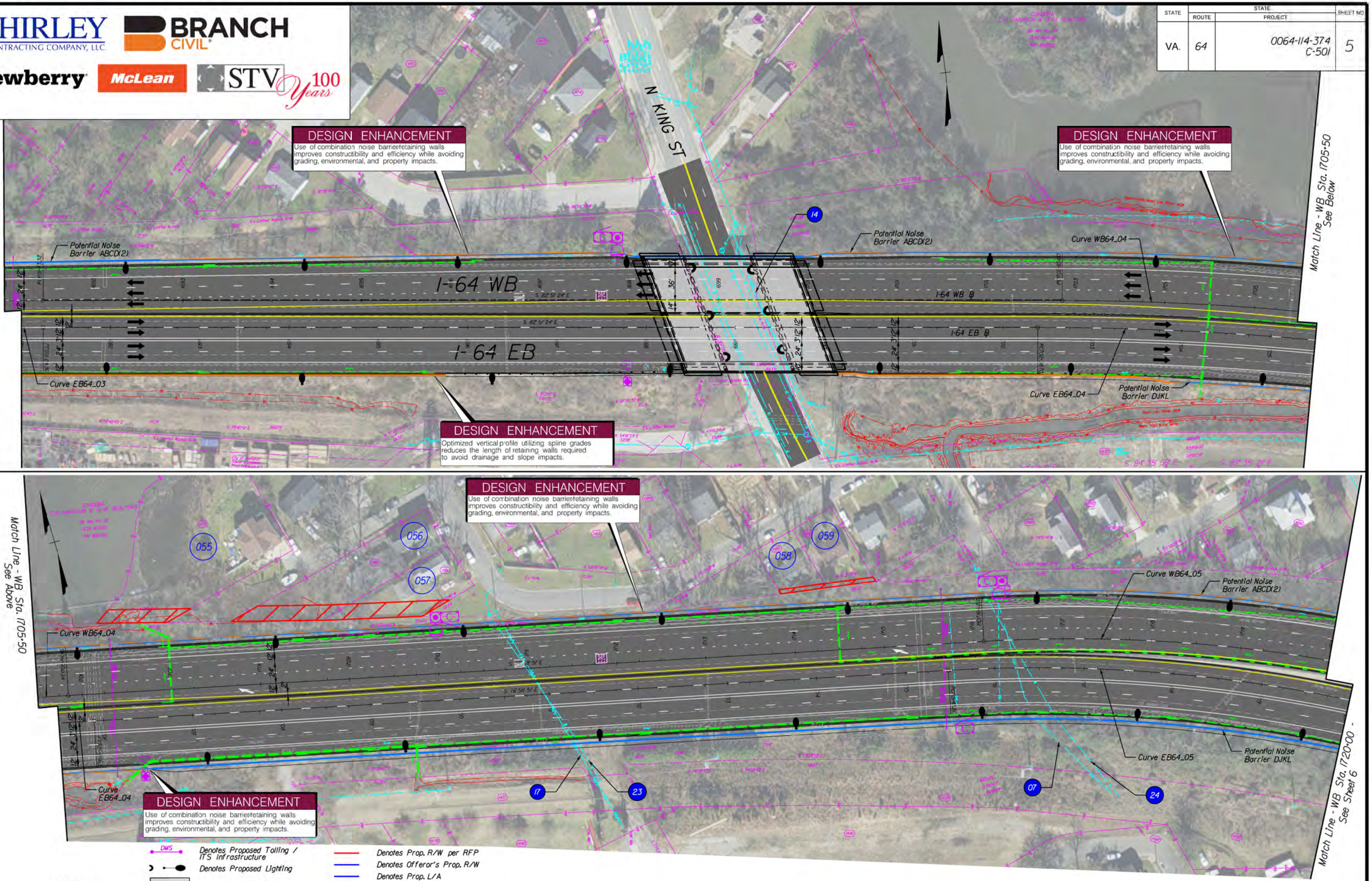
See Sheet 2A(2) for Curve Data

SCALE 0 50' 100'

PROJECT	SHEET NO.
0064-114-374	4

SHIRLEY CONTRACTING COMPANY, LLC
BRANCH CIVIL
Dewberry
McLean
STV 100 Years

STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
VA.	64	0064-114-374 C-501	5



DESIGN ENHANCEMENT
Use of combination noise barrier/retaining walls improves constructibility and efficiency while avoiding grading, environmental, and property impacts.

DESIGN ENHANCEMENT
Use of combination noise barrier/retaining walls improves constructibility and efficiency while avoiding grading, environmental, and property impacts.

DESIGN ENHANCEMENT
Optimized vertical profile utilizing spline grades reduces the length of retaining walls required to avoid drainage and slope impacts.

DESIGN ENHANCEMENT
Use of combination noise barrier/retaining walls improves constructibility and efficiency while avoiding grading, environmental, and property impacts.

DESIGN ENHANCEMENT
Use of combination noise barrier/retaining walls improves constructibility and efficiency while avoiding grading, environmental, and property impacts.

▇	Proposed Asphalt Pavement
🟩	Denotes Proposed Grass Median/ Buffer/Planted Area
▨	Proposed Gravel
DMS	Denotes Proposed Tolling / ITS Infrastructure
●	Denotes Proposed Lighting
▭	Denotes Proposed Bridge
▭	Denotes Demolition of Pavement
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—	Denotes Prop. L/A
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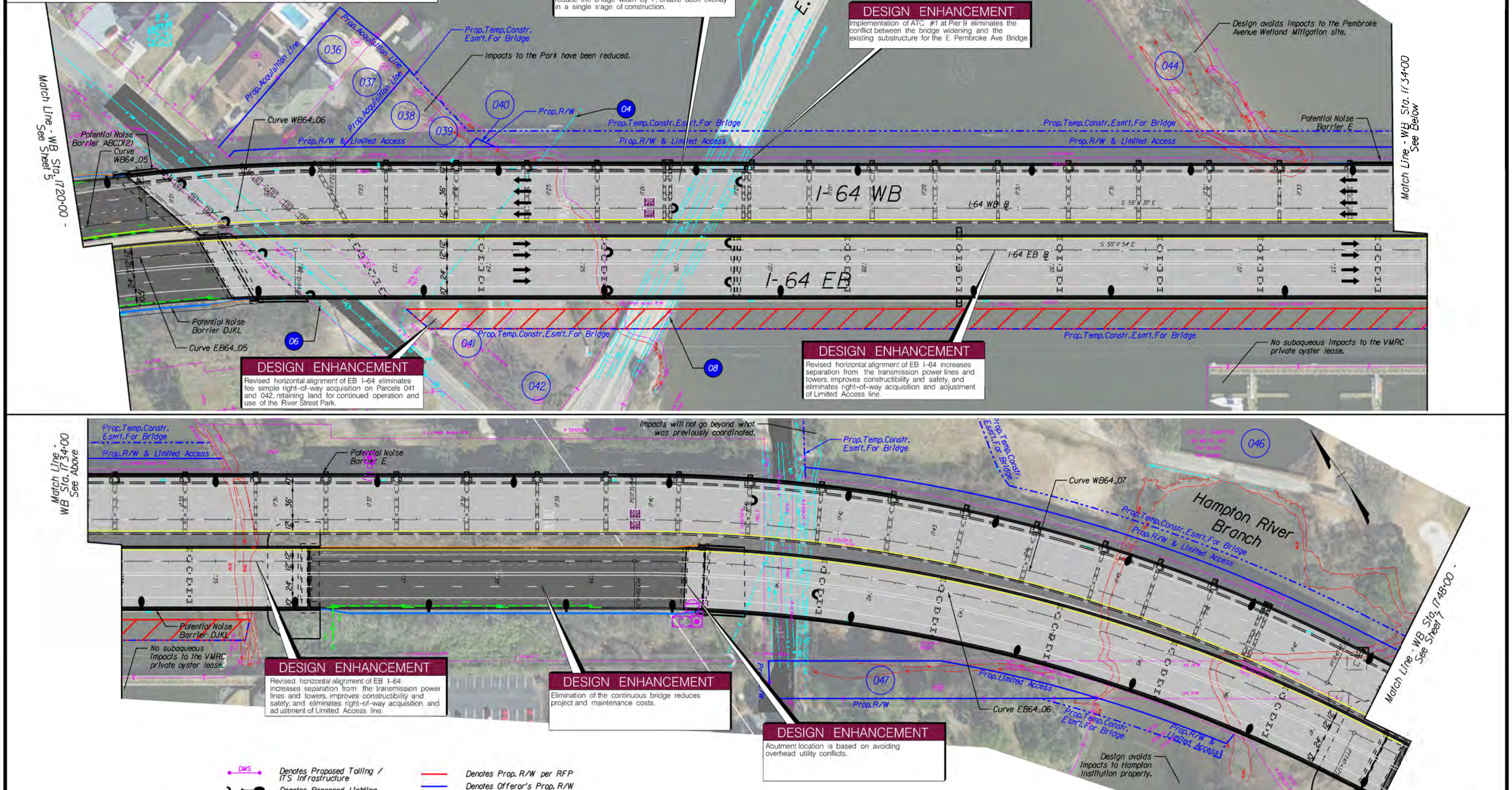
—	Exist. Utilities
—	Denotes Potential Retaining Wall
—	Denotes Potential Noise Barrier
—·—·—	Denotes Prop. Guardrail
X	Denotes Utility Mitigation Strategy, See Volume I - Section 4.4.2
➡	Denotes Prop. Travel Lane

See Sheet 2A(2) for Curve Data

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-114-374	5

SHIRLEY CONTRACTING COMPANY, LLC
BRANCH CIVIL
Dewberry
McLean
STV 100 Years

STATE	ROUTE	STATE PROJECT	SHEET NO.
VA.	64	0064-114-374 C-501	6



DESIGN ENHANCEMENT
Revised design and sequence of construction to reduce the bridge width by 1', enable deck overlay in a single stage of construction.

DESIGN ENHANCEMENT
Implementation of ATC #1 at Pier 9 eliminates the conflict between the bridge widening and the existing substructure for the E. Pembroke Ave Bridge.

DESIGN ENHANCEMENT
Revised horizontal alignment of EB I-64 eliminates fee simple right-of-way acquisition on Parcels 041 and 042, retaining land for continued operation and use of the River Street Park.

DESIGN ENHANCEMENT
Revised horizontal alignment of EB I-64 increases separation from the transmission power lines and towers, improves constructibility and safety, and eliminates right-of-way acquisition and adjustment of Limited Access line.

DESIGN ENHANCEMENT
Revised horizontal alignment of EB I-64 increases separation from the transmission power lines and towers, improves constructibility and safety, and eliminates right-of-way acquisition and adjustment of Limited Access line.

DESIGN ENHANCEMENT
Elimination of the continuous bridge reduces project and maintenance costs.

DESIGN ENHANCEMENT
Abutment location is based on avoiding overhead utility conflicts.

▬	Proposed Asphalt Pavement
🟩	Denotes Proposed Grass Median/ Buffer/Planted Area
▨	Proposed Gravel
DMS	Denotes Proposed Tolling / ITS Infrastructure
●	Denotes Proposed Lighting
▭	Denotes Proposed Bridge
☐	Denotes Demolition of Pavement
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—	Denotes Offeror's Prop. R/W
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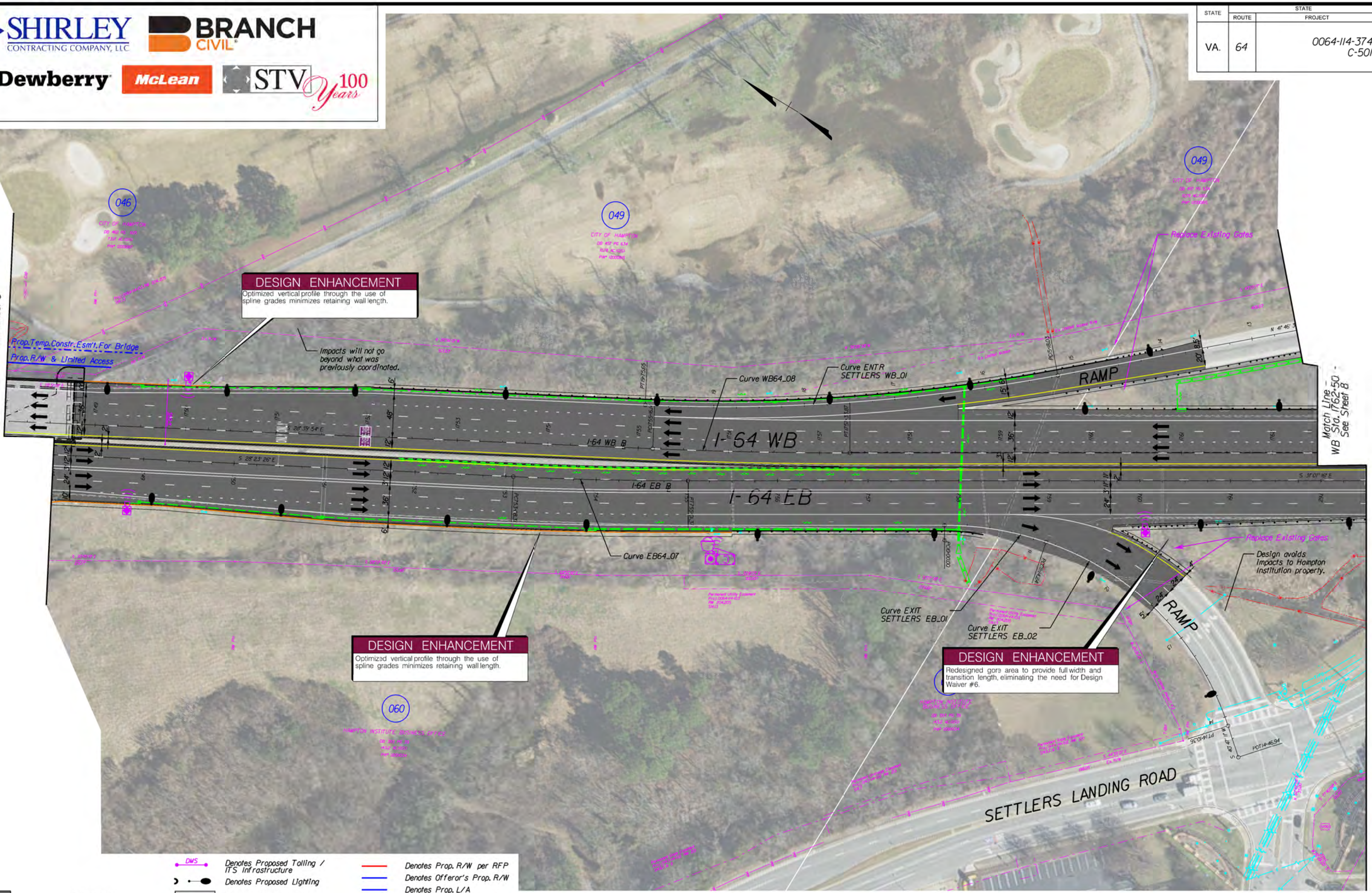
— · —	Denotes Prop. Perm. Esm't.
— · · —	Denotes Temp. Esm't.
— —	Denotes Exist. R/W
—	Exist. Utilities
—	Denotes Potential Retaining Wall
—	Denotes Potential Noise Barrier
—·—·—	Denotes Prop. Guardrail
X	Denotes Utility Mitigation Strategy, See Volume I - Section 4.4.2
➡	Denotes Prop. Travel Lane

See Sheet 2A(2) for Curve Data

SCALE 0 50' 100'

PROJECT	SHEET NO.
0064-114-374	6

STATE	ROUTE	STATE PROJECT	SHEET NO.
VA.	64	0064-114-374 C-501	7



DESIGN ENHANCEMENT
Optimized vertical profile through the use of spline grades minimizes retaining wall length.

DESIGN ENHANCEMENT
Optimized vertical profile through the use of spline grades minimizes retaining wall length.

DESIGN ENHANCEMENT
Redesigned gore area to provide full width and transition length, eliminating the need for Design Waiver #6.

- ▬ Proposed Asphalt Pavement
- 🟩 Denotes Proposed Grass Median/Buffer/Planted Area
- ▨ Proposed Gravel
- DMS Denotes Proposed Tolling / ITS Infrastructure
- ● Denotes Proposed Lighting
- ▭ Denotes Proposed Bridge
- ☐ Denotes Demolition of Pavement
- ▨ Denotes Area of R/W or Esm't Reduction
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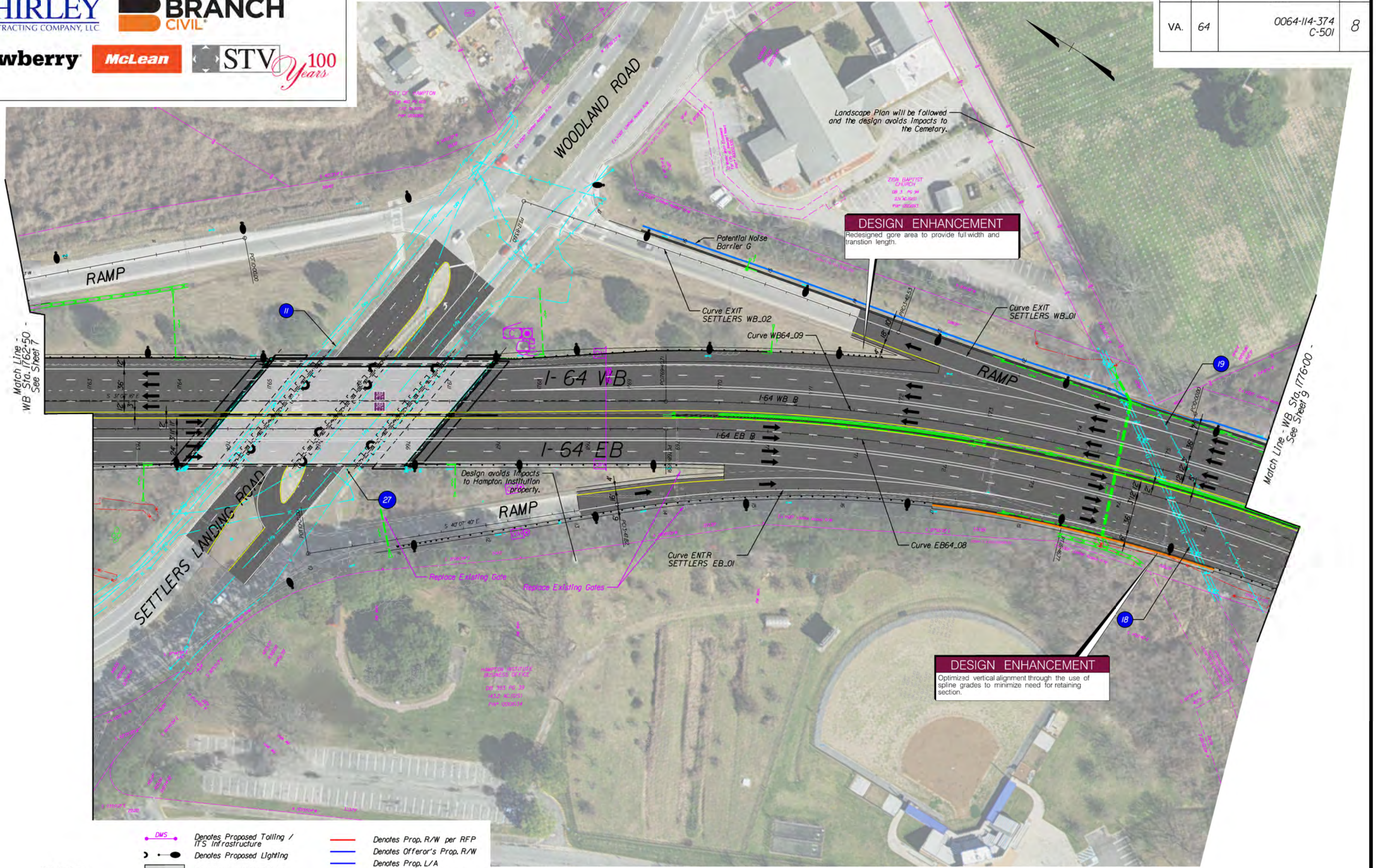
- ― Denotes Offeror's Prop. R/W
- ― Denotes Prop. L/A
- -·- Denotes Prop. Perm. Esm't.
- -··- Denotes Temp. Esm't.
- -- Denotes Exist. R/W
- ― Exist. Utilities
- ― Denotes Potential Retaining Wall
- ― Denotes Potential Noise Barrier
- ―·― Denotes Prop. Guardrail
- Ⓧ Denotes Utility Mitigation Strategy. See Volume I - Section 4.4.2
- ➡ Denotes Prop. Travel Lane

See Sheet 2A(2) for Curve Data

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-114-374	7

SHIRLEY CONTRACTING COMPANY, LLC
BRANCH CIVIL
Dewberry
McLean
STV 100 Years

STATE	ROUTE	STATE PROJECT	SHEET NO.
VA.	64	0064-114-374 C-501	8



DESIGN ENHANCEMENT
Redesigned gore area to provide full width and transition length.

DESIGN ENHANCEMENT
Optimized vertical alignment through the use of spline grades to minimize need for retaining section.

⬛	Proposed Asphalt Pavement
🟩	Denotes Proposed Grass Median/ Buffer/Planted Area
▨	Proposed Gravel
DMS	Denotes Proposed Tolling / ITS Infrastructure
●—●	Denotes Proposed Lighting
▭	Denotes Proposed Bridge
▭	Denotes Demolition of Pavement
🟥	Denotes Area of R/W or Esm't Reduction
—	Denotes Prop. R/W per RFP
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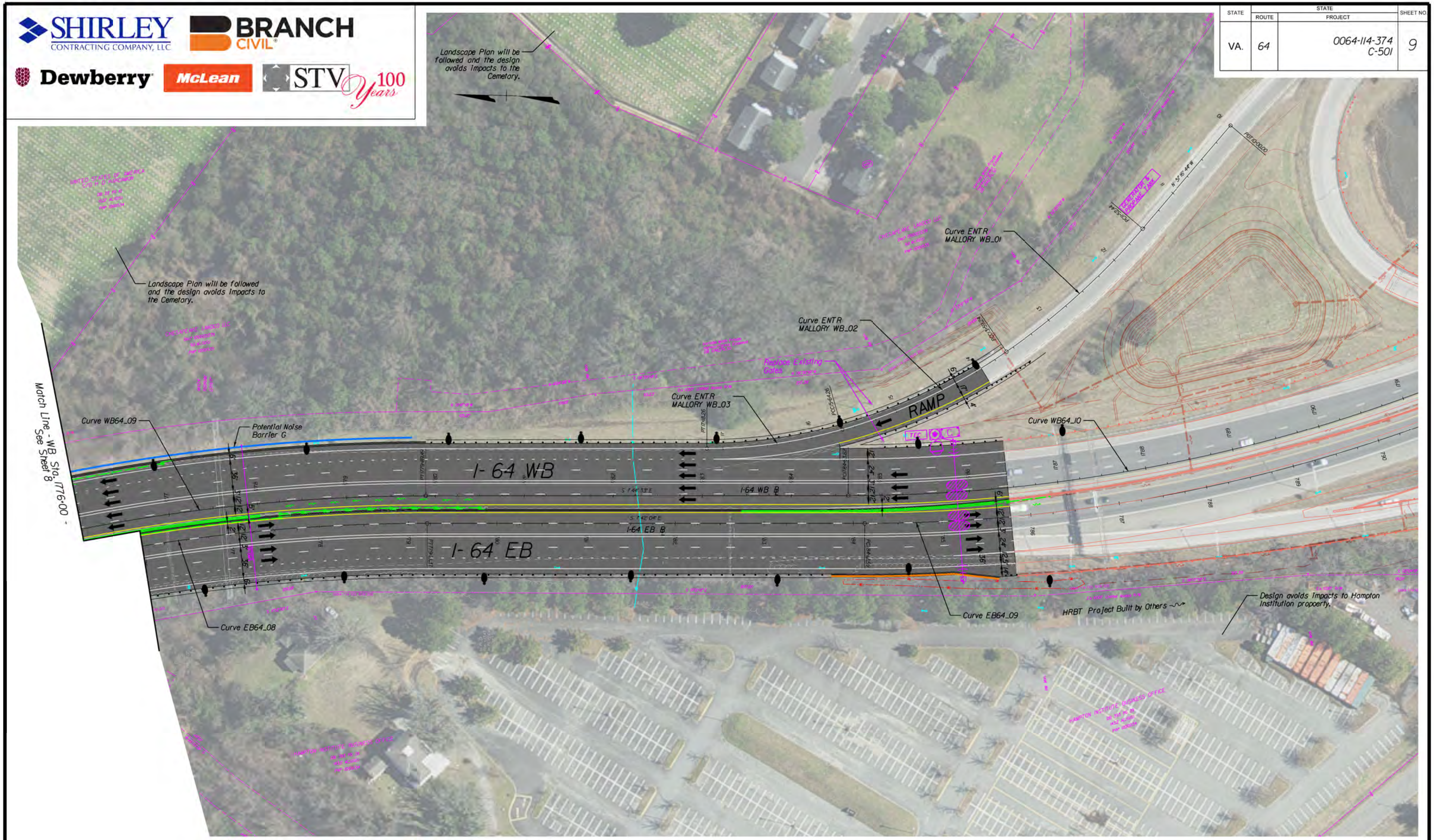
—	Denotes Prop. L/A
-·-	Denotes Prop. Perm. Esm't.
-··-	Denotes Temp. Esm't.
- -	Denotes Exist. R/W
—	Exist. Utilities
—	Denotes Potential Retaining Wall
—	Denotes Potential Noise Barrier
—·—	Denotes Prop. Guardrail
X	Denotes Utility Mitigation Strategy. See Volume I - Section 4.4.2
➡	Denotes Prop. Travel Lane

See Sheet 2A(2) for Curve Data

SCALE 0 50' 100'

PROJECT	SHEET NO.
0064-114-374	8

STATE	ROUTE	STATE PROJECT	SHEET NO.
VA.	64	0064-114-374 C-501	9



DMS Denotes Proposed Tolling / ITS Infrastructure

● Denotes Proposed Lighting

▨ Proposed Asphalt Pavement

🟩 Denotes Proposed Grass Median/ Buffer/Planted Area

Proposed Gravel

Denotes Proposed Bridge

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▨ Denotes Area of R/W or Esm't Reduction

Denotes Prop. R/W per RFP

Denotes Offeror's Prop. R/W

Denotes Prop. L/A

Denotes Prop. Perm. Esm't.

Denotes Temp. Esm't.

Denotes Exist. R/W

Exist. Utilities

Denotes Potential Retaining Wall

Denotes Potential Noise Barrier

Denotes Prop. Guardrail

Ⓧ Denotes Utility Mitigation Strategy, See Volume I - Section 4.4.2

➡ Denotes Prop. Travel Lane

See Sheet 2A(2) for Curve Data

SCALE	PROJECT	SHEET NO.
0 50' 100'	0064-114-374	9

4.3.2 - Conceptual Structural Plans

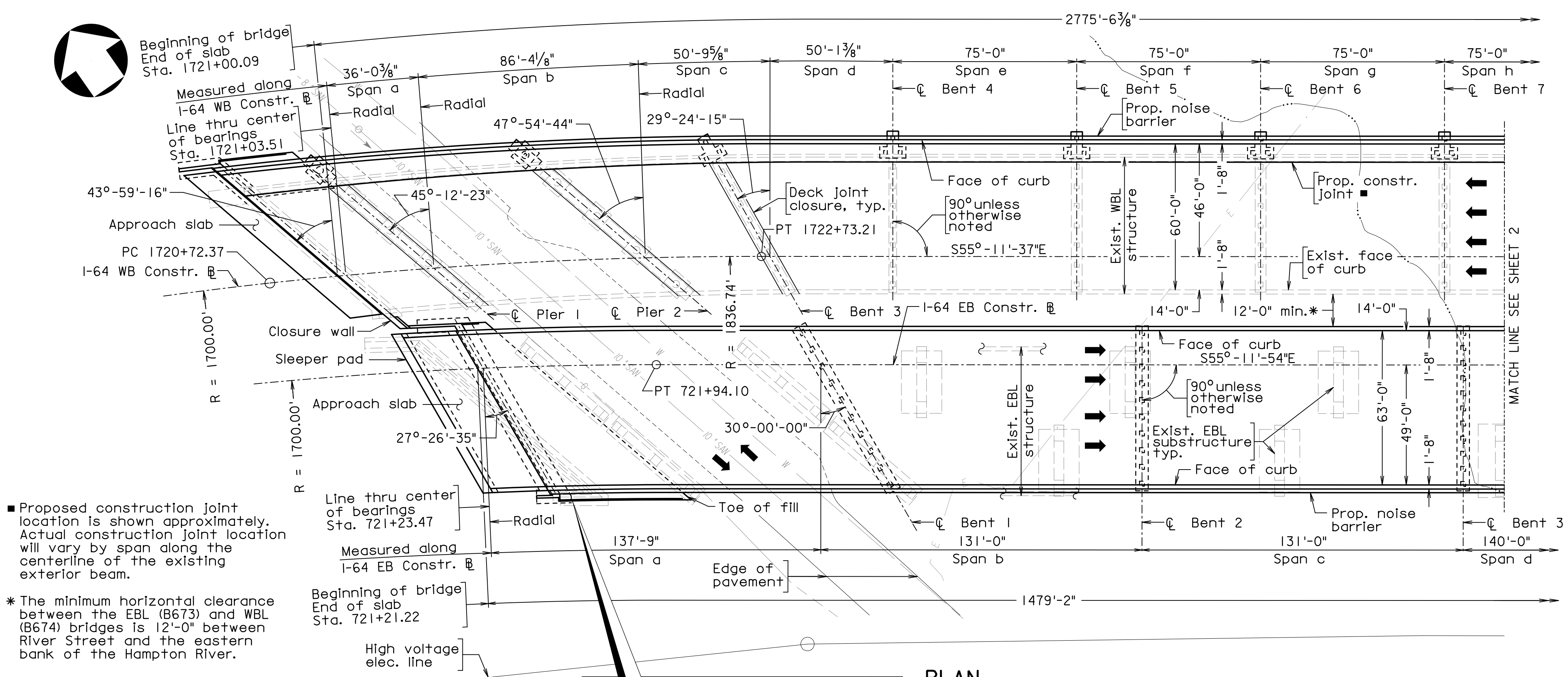
STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.
VA.	—	NHPP-064-3(522)	64	0064-114-374, B673, B674, B6XX	1

Federal Structure No. 000000000020346
000000000020316
0000000000XXXXX

FHWA Construction and Scour Code: X481-S5

Federal Stewardship and Oversight Code: N/A

UPC No. 119638



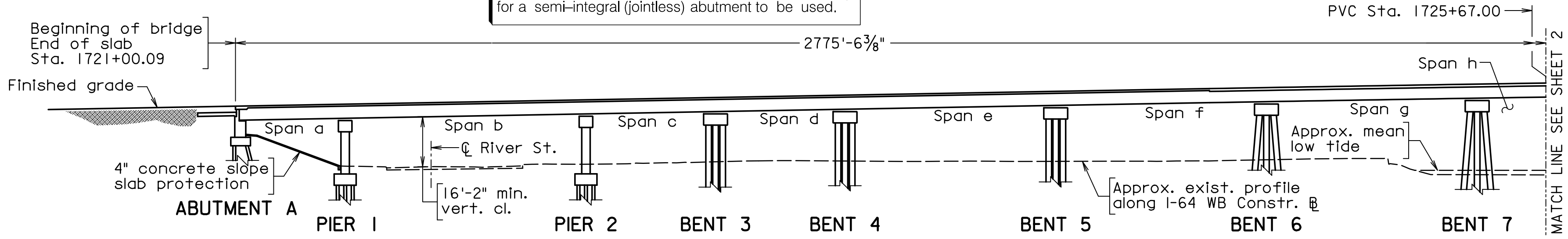
■ Proposed construction joint location is shown approximately. Actual construction joint location will vary by span along the centerline of the existing exterior beam.

✱ The minimum horizontal clearance between the EBL (B673) and WBL (B674) bridges is 12'-0" between River Street and the eastern bank of the Hampton River.

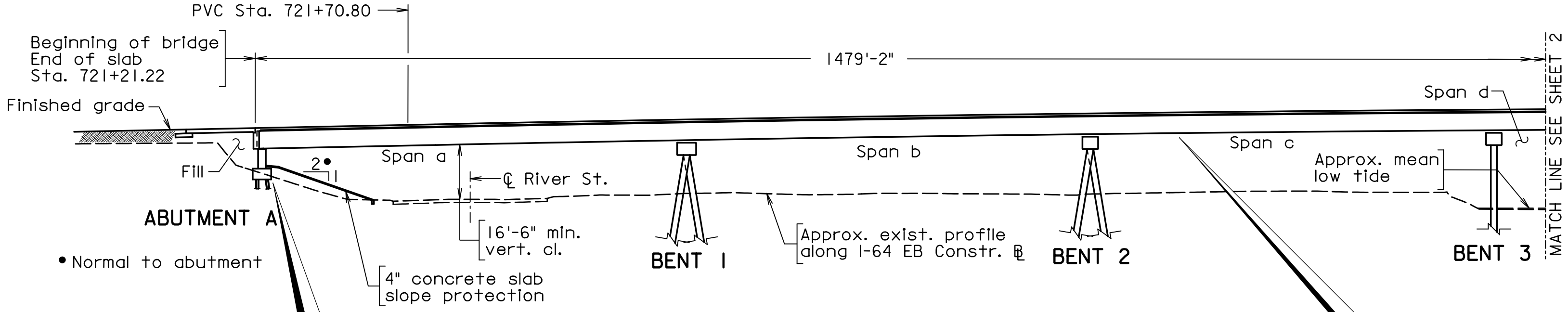
PLAN

DESIGN ENHANCEMENT

Reduced the skew of Abutment A on the EBL (B673) bridge by approximately 20 degrees allowing for a semi-integral (jointless) abutment to be used.



DEVELOPED SECTION ALONG I-64 WB WIDENING



• Normal to abutment

DEVELOPED SECTION ALONG I-64 EB CONSTR. ℄

DESIGN ENHANCEMENT

Eliminated one tooth expansion joint by using a semi-integral abutment at Abutment A on the EBL (B673) bridge.

DESIGN COMPLIANCE

The proposed structure is hydraulically equivalent to the existing bridge and the low chord elevations for the proposed structure are not lower than the existing bridge low chord elevations at any given location.

DESIGN EXCEPTION(S):

Reduce left shoulder width to 2'-0". Approved by the State Structure and Bridge Engineer on December 6, 2021.

GENERAL NOTES:

Width: WBL (B674): 60'-0" face-to-face of curbs. Includes widening of 12'-0"±.

EBL (B673 and B6XX): 63'-0" face-to-face of curbs.

Span layout: WBL (B674): 36'- 0⅜" - 86'-4⅛" - 50'-9⅝" - 50'-1⅜" - 75'-0" - 75'-0" - 75'-0" - 75'-0" - 84'-0" - 67'-0" - 67'-0" - 67'-0" - 67'-0" - 75'-0" - 75'-0" - 75'-0" - 75'-0" - 75'-0" - 75'-0" - 75'-0" - 75'-0" - 75'-0" - 75'-0" - 75'-0" - 75'-0" - 73'-5½" - 76'-5¾" - 74'-10¼" - 74'-9¾" - 74'-9⅝" - 74'-7⅛" - 74'-9½" - 74'-10¾" - 59'-9⅞" - 59'-9⅞" - 59'-9¾" prestressed concrete beam spans and 109'-5¼" - 106'-11" continuous steel plate girder spans.

EBL (B673): Unit 1 = 137'-9" - 131'-0" - 131'-0" - 140'-0" prestressed concrete 69" deep bulb-T beam spans continuous for live load and Unit 2 = 119'-0" - 119'-0" - 107'-0" - 107'-0" - 107'-0" - 125'-0" - 125'-0" - 121'-1½" prestressed concrete 61" deep bulb-T beam spans continuous for live load.

EBL (B6XX): 125'-0" - 127'-0" - 127'-0" - 127'-0" - 127'-0" - 116'-10" prestressed concrete 61" deep bulb-T beam spans continuous for live load.

Capacity: EBL (B673 and B6XX): HL-93 loading. WBL (B674): HS20-44 and alternate military loading (original design) HL-93 (widening).

Drainage area: Tidal

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, 2016; including all current revisions.

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

All structural steel in spans ak and al on the WBL (B674) bridge, including bearings, shall be ASTM A709 Grade 50W and shall be painted.

Bridge Nos. of existing bridges are 2804 & 2805 EBL and 2839 WBL. Existing Plan Nos. are 171-14, 171-14A, 171-13, 171-13A EBL and 260-79 WBL.

Pier protection will be evaluated and installed as necessary.

For WBL (B674) bridge repair/modification notes, see sheet 3.

VDOT

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

PROPOSED BRIDGES AND
PROPOSED BRDGE WIDENING ON
I-64 EBL/WBL OVER RIVER ST., HAMPTON RIVER,
EAST PEMBROKE AVE., SOUTH BOXWOOD ST.,
AND EAST BRANCH
CITY OF HAMPTON - 1.3 MI. E. OF RTE. 167
PROJECT NO. 0064-114-374, B673, B674, B6XX

Recommended for Approval: ______________ ______
District Project Development Engineer Date

Approved: ______________ ______
District Administrator Date

171-14B

Date: May 12, 2022

Sheet 1 of 6

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

Scale: 1" = 30'

STV INCORPORATED
RICHMOND, VA
STRUCTURAL ENGINEER

PLANS BY:	STV Incorporated
COORDINATED:	---
SUPERVISED:	---
DESIGNED:	---
DRAWN:	---
CHECKED:	---

HREL_01_GPE.dgn

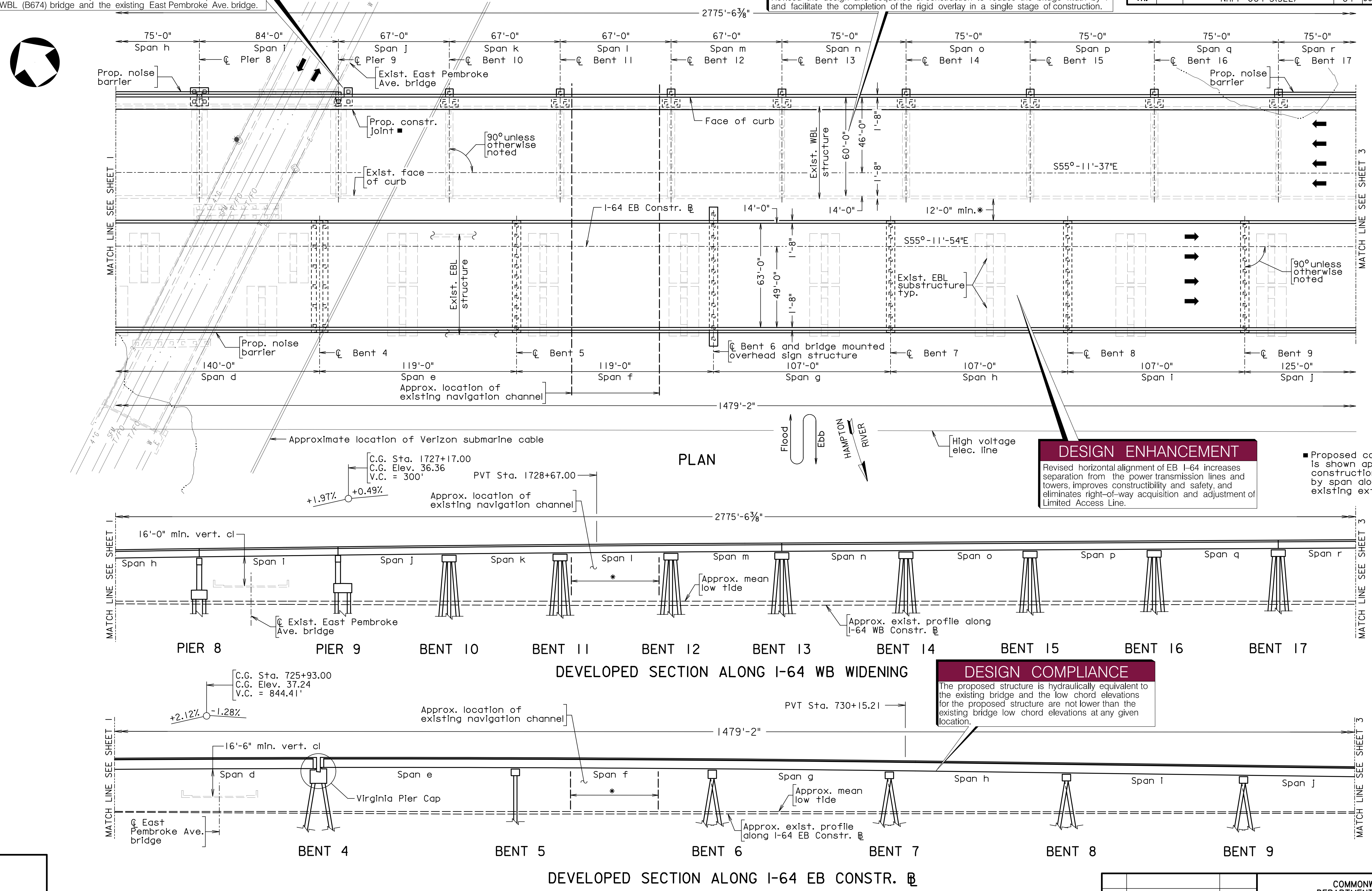
STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.
VA.	—	NHPP-064-3(522)	64	0064-114-374, B673, B674, B6XX	2

DESIGN ENHANCEMENT

Proposed ATC #01 to avoid impacts between the widened portion of Pier 9 on the WBL (B674) bridge and the existing East Pembroke Ave. bridge.

DESIGN ENHANCEMENT

Revised the design and sequence of construction to reduce the bridge width by 1' and facilitate the completion of the rigid overlay in a single stage of construction.



DESIGN ENHANCEMENT

Revised horizontal alignment of EB I–64 increases separation from the power transmission lines and towers, improves constructibility and safety, and eliminates right–of–way acquisition and adjustment of Limited Access Line.

DESIGN COMPLIANCE

The proposed structure is hydraulically equivalent to the existing bridge and the low chord elevations for the proposed structure are not lower than the existing bridge low chord elevations at any given location.

■ Proposed construction joint location is shown approximately. Actual construction joint location will vary by span along the centerline of the existing exterior beam.

*Approximate loaction of existing navigation channel shown. Temporary clearances during construction and minimum permanent clearances to be coordinated and approved by the United States Coast Guard.

* The minimum horizontal clearance between the EBL (B673) and WBL (B674) bridges is 12'-0" between River Street and the eastern bank of the Hampton River.

Scale: 1" = 30'

HREL_02_GPE.dgn

STV INCORPORATED
RICHMOND, VA
STRUCTURAL ENGINEER

SHIRLEY CONTRACTING COMPANY, LLC · BRANCH CIVIL · Dewberry · McLean · STV 100 Years

No.	Description	Date
Revisions		

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

STRUCTURE AND BRIDGE DIVISION

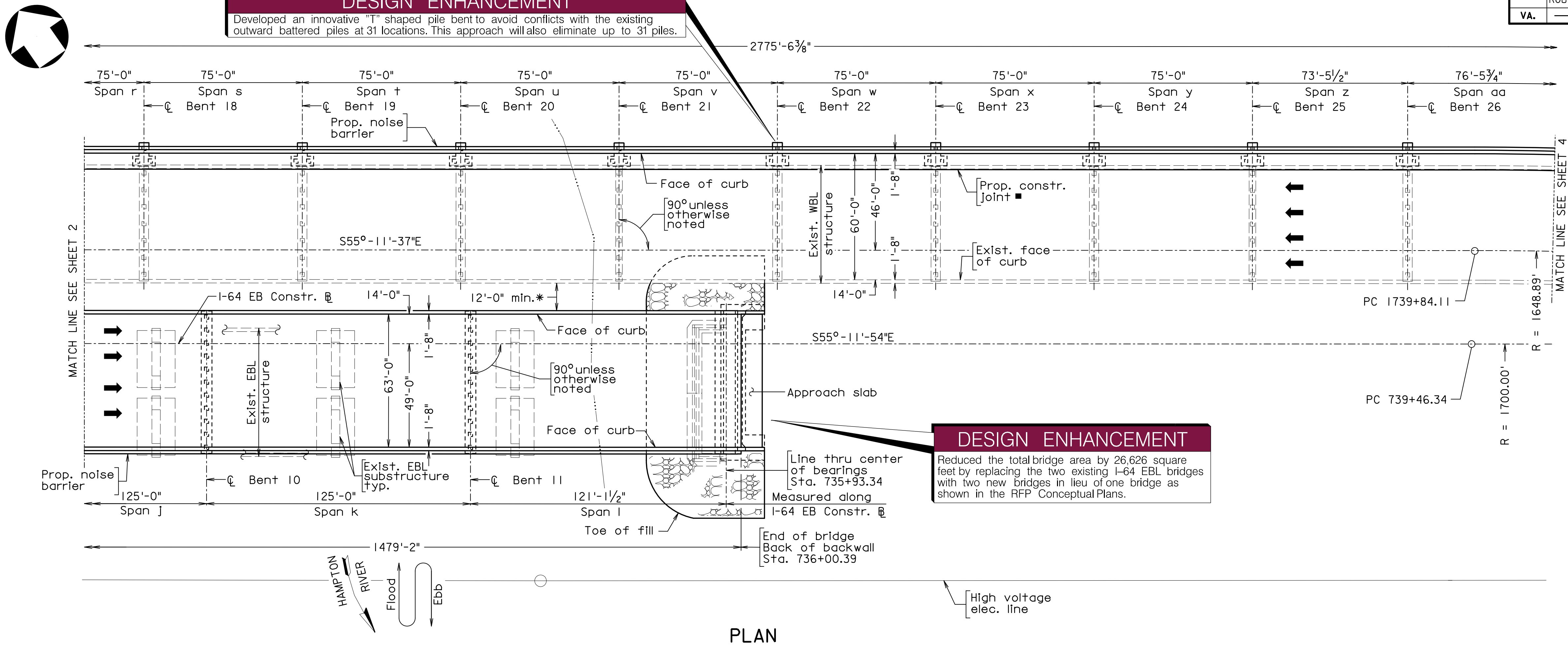
PLAN AND DEVELOPED SECTION
CONTINUED

Designed: TRL Drawn: KRJ Checked: DBO	Date	Plan No.	Sheet No.
	May 2022	171-14B	2 of 6

STATE	FEDERAL AID		STATE		SHEET NO.
	ROUTE	PROJECT	ROUTE	PROJECT	
VA.	—	NHPP-064-3(522)	64	0064-114-374, B673, B674, B6XX	3

DESIGN ENHANCEMENT

Developed an innovative "T" shaped pile bent to avoid conflicts with the existing outward battered piles at 31 locations. This approach will also eliminate up to 31 piles.



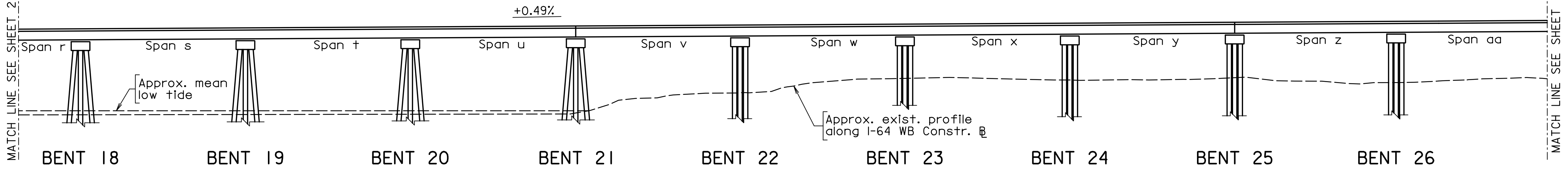
DESIGN ENHANCEMENT

Reduced the total bridge area by 26,626 square feet by replacing the two existing I-64 EBL bridges with two new bridges in lieu of one bridge as shown in the RFP Conceptual Plans.

PLAN

■ Proposed construction joint location is shown approximately. Actual construction joint location will vary by span along the centerline of the existing exterior beam.

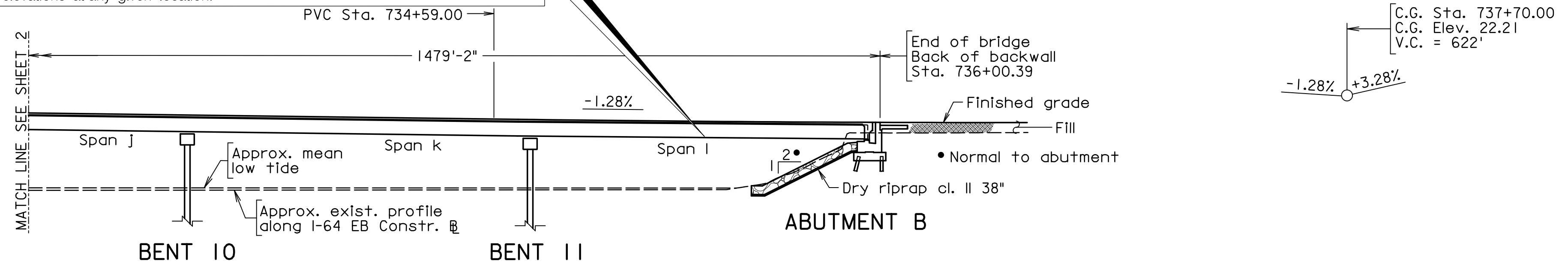
∗ The minimum horizontal clearance between the EBL (B673) and WBL (B674) bridges is 12'-0" between River Street and the eastern bank of the Hampton River.



DEVELOPED SECTION ALONG I-64 WB WIDENING

DESIGN COMPLIANCE

The proposed structure is hydraulically equivalent to the existing bridge and the low chord elevations for the proposed structure are not lower than the existing bridge low chord elevations at any given location.



DEVELOPED SECTION ALONG I-64 EB CONSTR. ℄

WBL (B674) Bridge Repair/Modification Notes:

All superstructure and substructure repairs will be performed on the existing WBL (B674) bridge in accordance with the RFP requirements. This includes existing deck slab milling and hydro-demolition; patching and overlay; repairing existing beams; repairing spalls and cracks on abutments and piers/bents; and repairing existing slope protection.

Joints at Piers/Bents 1, 2, 3, 34, and 35 will be retrofitted in accordance with Structure and Bridge Manual Volume V, Part 2, File No. 32.09-2. Existing deck slab and abutments will be modified to eliminate the existing deck joints at abutments.

Existing joints at Piers/Bents 8, 9, 13, 17, 21, 25, 29, and 36 will be replaced with armored joints utilizing elastomeric expansion dams.

The existing steel superstructure in spans ak and al, including all steel components of the integral pier cap at Pier 37, will be prepared and spot coated in accordance with the RFP requirements.

All existing bearings will be replaced utilizing steel-reinforced elastomeric pads, except for the bearings at Pier 37 which will be replaced with high load multi-rotational bearings.

Replace the existing approach slabs with buried approach slabs extending from curb to curb.

HREL_03_GPE.dgn

STV INCORPORATED
RICHMOND, VA
STRUCTURAL ENGINEER

SHIRLEY CONTRACTING COMPANY, LLC
BRANCH CIVIL
Dewberry
McLean
STV 100 Years

Scale: 1" = 30'

No.	Description	Date
Revisions		

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

STRUCTURE AND BRIDGE DIVISION

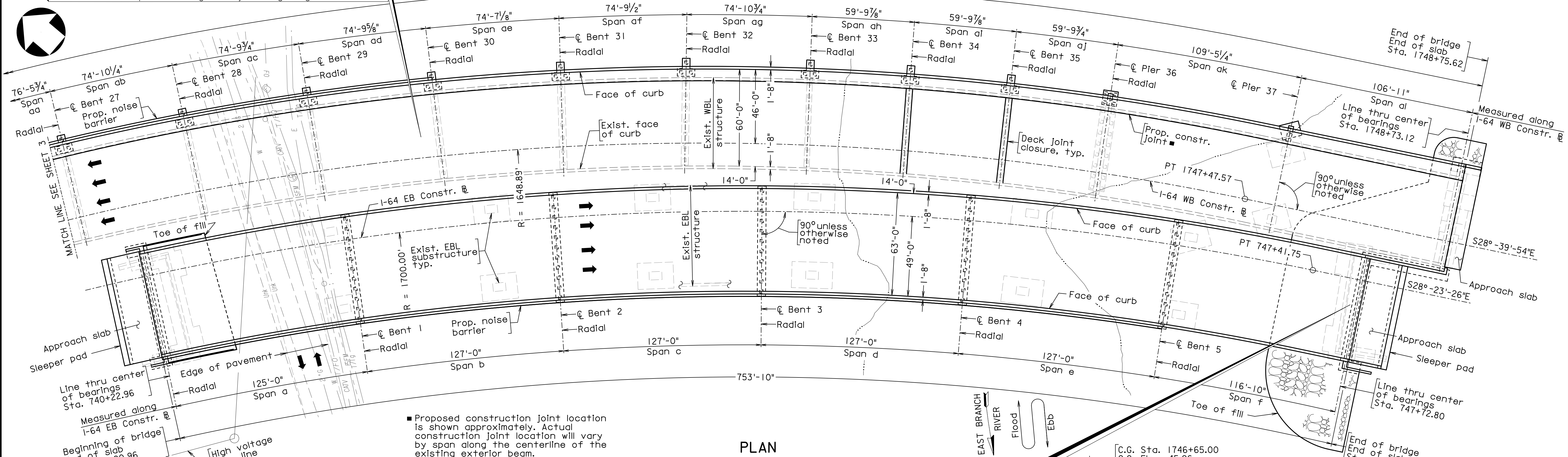
PLAN AND DEVELOPED SECTION CONTINUED

Designed: TRL Drawn: KRJ Checked: DBO	Date	Plan No.	Sheet No.
	May 2022	171-14B	3 of 6

STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.
VA.	—	NHPP-064-3(522)	64	0064-114-374, B673, B674, B6XX	4

DESIGN ENHANCEMENT

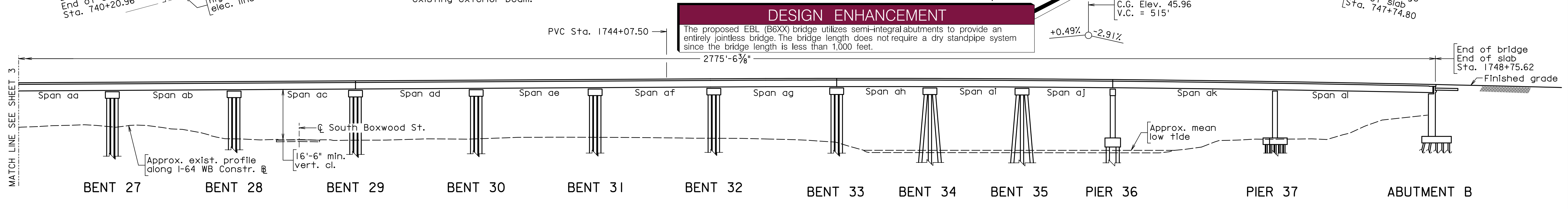
Revised the design and sequence of construction to reduce the bridge width by 1' and facilitate the completion of the rigid overlay in a single stage of construction.



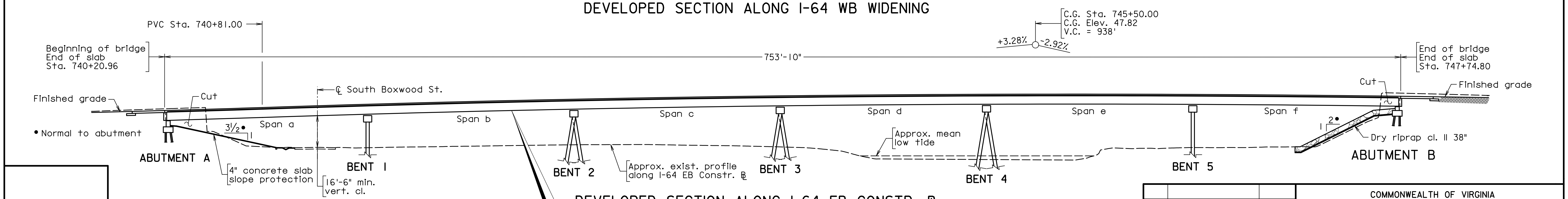
■ Proposed construction joint location is shown approximately. Actual construction joint location will vary by span along the centerline of the existing exterior beam.

DESIGN ENHANCEMENT

The proposed EBL (B6XX) bridge utilizes semi-integral abutments to provide an entirely jointless bridge. The bridge length does not require a dry standpipe system since the bridge length is less than 1,000 feet.



DEVELOPED SECTION ALONG I-64 WB WIDENING



• Normal to abutment

DEVELOPED SECTION ALONG I-64 EB CONSTR. ℄

DESIGN COMPLIANCE

The proposed structure is hydraulically equivalent to the existing bridge and the low chord elevations for the proposed structure are not lower than the existing bridge low chord elevations at any given location.

STV INCORPORATED
RICHMOND, VA
STRUCTURAL ENGINEER

Scale: 1" = 30'

No.	Description	Date
Revisions		

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

STRUCTURE AND BRIDGE DIVISION

PLAN AND DEVELOPED SECTION CONTINUED

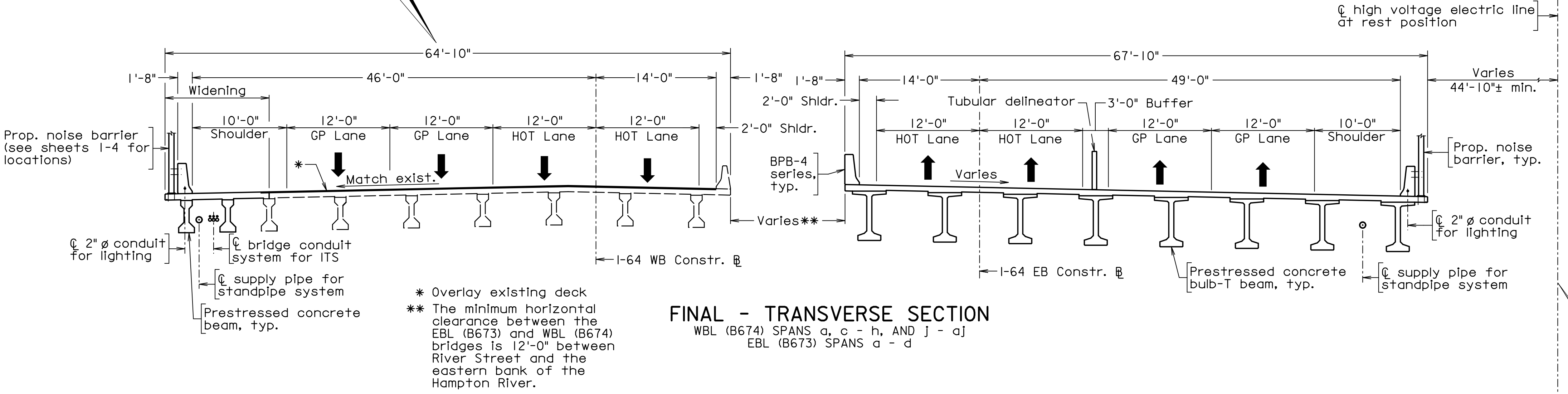
Designed: TRL Drawn: KRJ Checked: DBO	Date	Plan No.	Sheet No.
	May 2022	171-14B	4 of 6

HREL_04_GPE.dgn

STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.
VA.	—	NHPP-064-3(522)	64	0064-114-374, B673, B674, B6XX	5

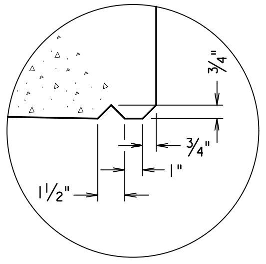
DESIGN ENHANCEMENT

Revised the design and sequence of construction to reduce the WBL (B674) bridge width by 1' and facilitate the completion of the rigid overlay in a single stage of construction.



FINAL - TRANSVERSE SECTION

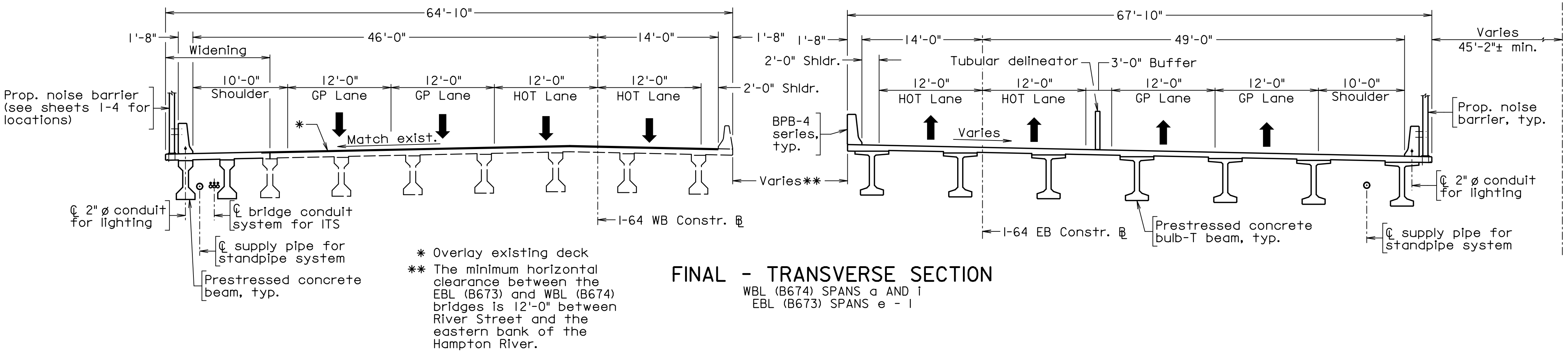
WBL (B674) SPANS a, c - h, AND j - aj
EBL (B673) SPANS a - d



DRIP DETAIL

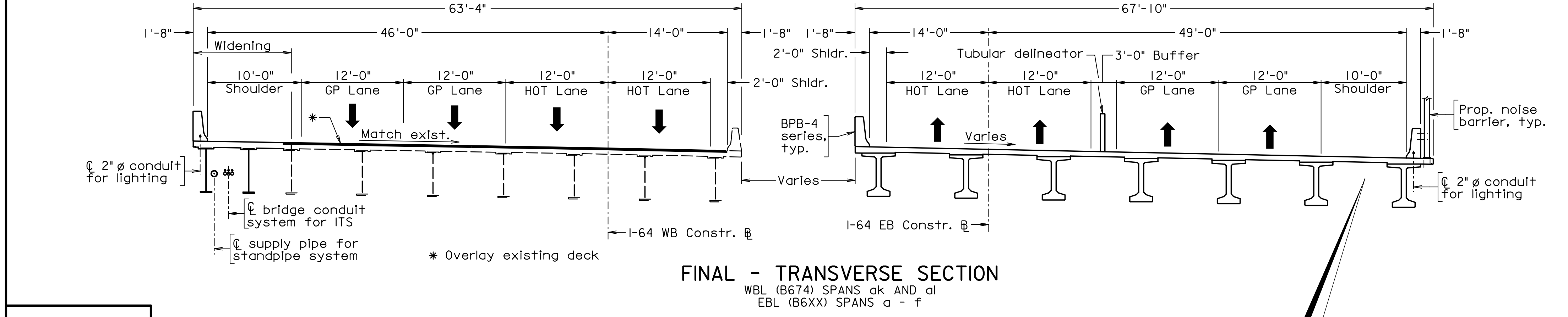
DESIGN ENHANCEMENT

Revised horizontal alignment of EB I-64 increases separation from the power transmission lines and towers, improves constructibility and safety, and eliminates right-of-way acquisition and adjustment of Limited Access Line.



FINAL - TRANSVERSE SECTION

WBL (B674) SPANS a AND i
EBL (B673) SPANS e - i



FINAL - TRANSVERSE SECTION

WBL (B674) SPANS ak AND al
EBL (B6XX) SPANS a - f

DESIGN ENHANCEMENT

The proposed EBL (B6XX) bridge length is less than 1,000 feet and does not require a dry standpipe system.

HREL_05_Transverse_Sections.dgn

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RICHMOND, VA
STRUCTURAL ENGINEER

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

No.	Description	Date
	Revisions	

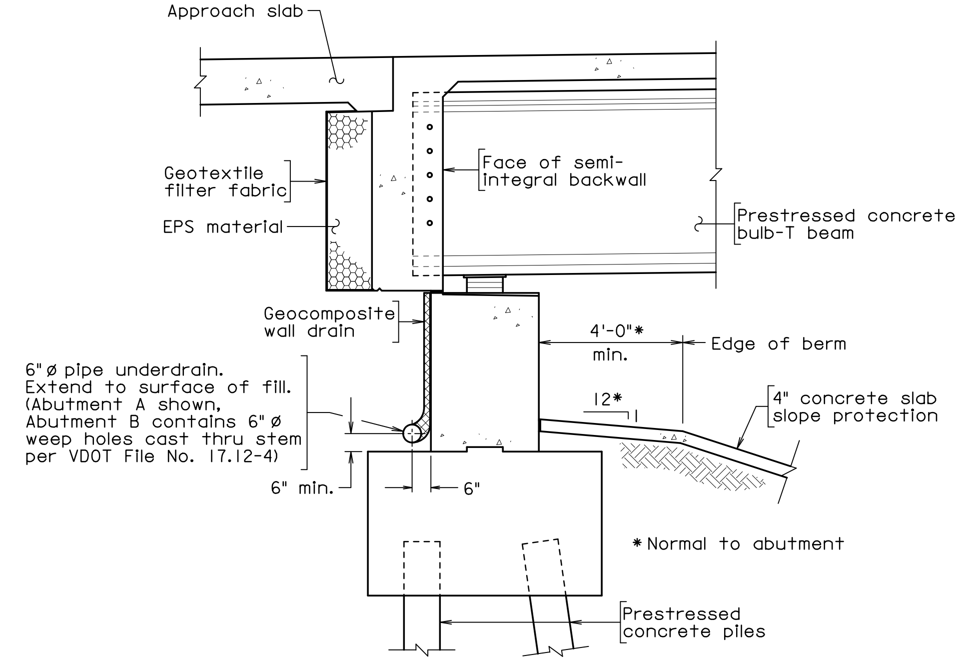
COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

STRUCTURE AND BRIDGE DIVISION

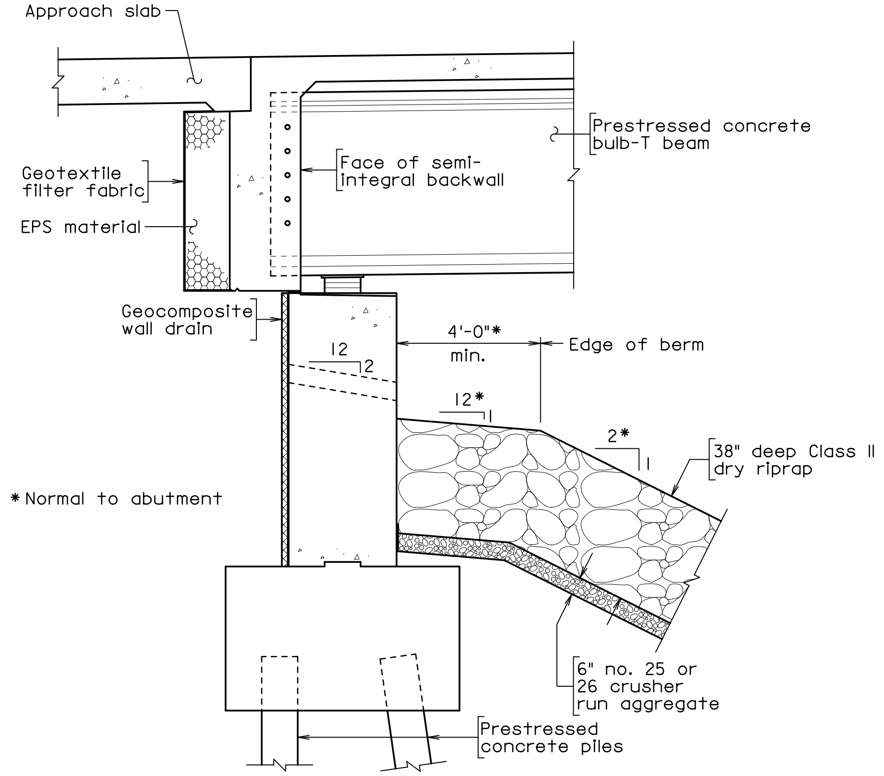
TRANSVERSE SECTIONS

Designed: TRL Drawn: KRJ Checked: DRO	Date	Plan No.	Sheet No.
	May 2022	171-14B	5 of 6

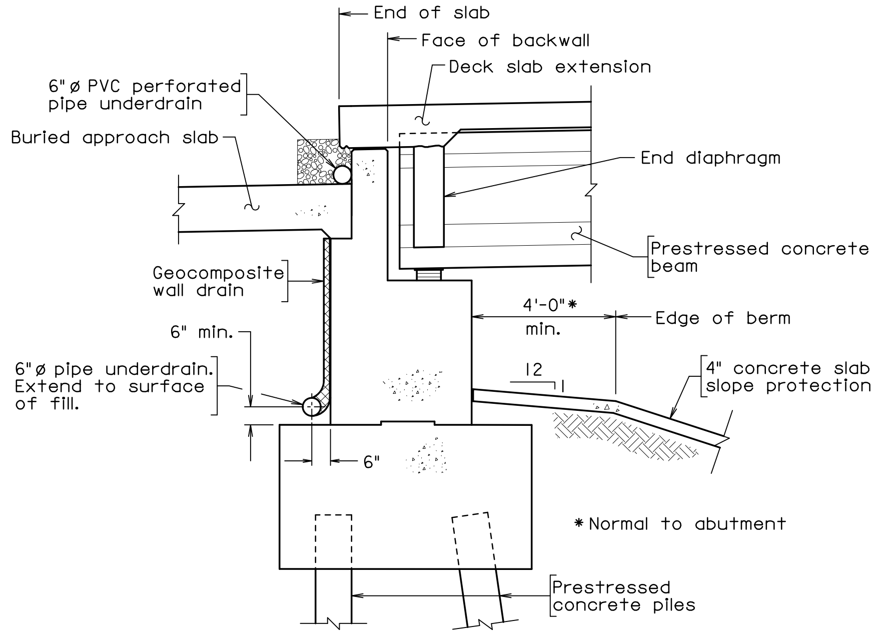
STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.
VA.	—	NHPP-064-3(522)	64	0064-114-374, B673, B674, B6XX	6



PROPOSED ABUTMENT SECTION FOR EBL (B6XX) ABUTMENT A

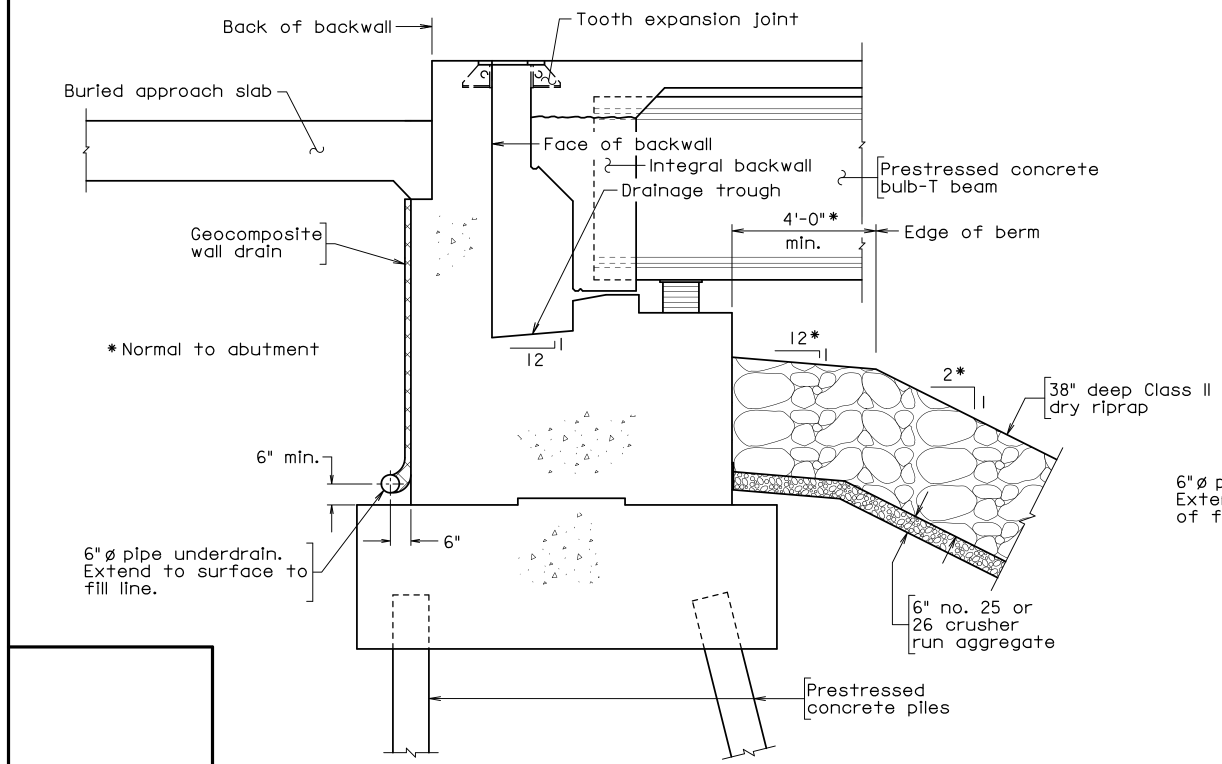


PROPOSED ABUTMENT SECTION FOR EBL (BXX) ABUTMENT B

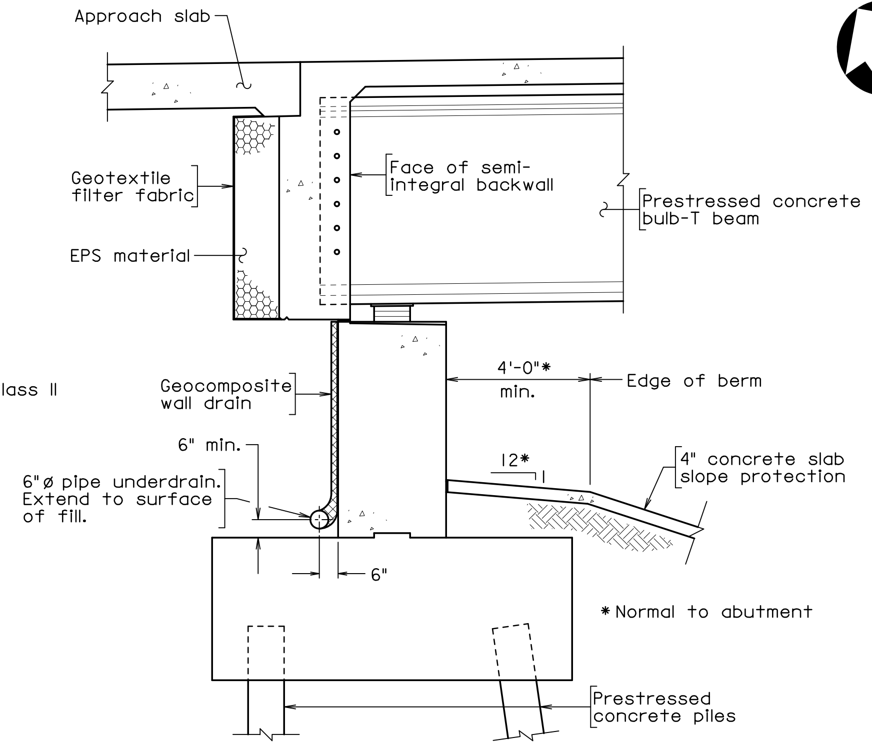


PROPOSED ABUTMENT SECTION FOR WBL (B674) ABUTMENTS A AND B

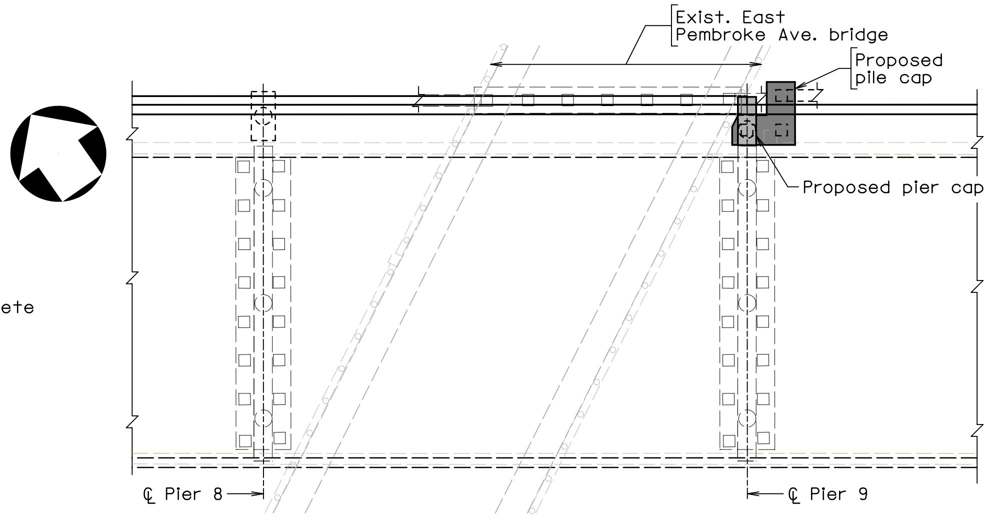
Abutment A for the WBL (B674) bridge shown.
Abutment B for the WBL (B674) bridge similar.



PROPOSED ABUTMENT SECTION FOR EBL (B673) ABUTMENT B



PROPOSED ABUMENT SECTION FOR EBL (B673) ABUTMENT A



PARTIAL PLAN AT WBL (B674) PIER 9 ATC #01 DETAILS

SHIRLEY CONTRACTING COMPANY, LLC
BRANCH CIVIL
Dewberry
McLean
STV 100 Years

STV INCORPORATED
RICHMOND, VA
STRUCTURAL ENGINEER

HREL_06_Details.dgn

Not to scale

No.	Description	Date
	Revisions	

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
STRUCTURE AND BRIDGE DIVISION

PROPOSED ABUTMENT SECTIONS AND ATC #01 DETAILS

Designed: TRL
Drawn: KRJ
Checked: DRO

Date	Plan No.	Sheet No.
May 2022	171-14B	6 of 6

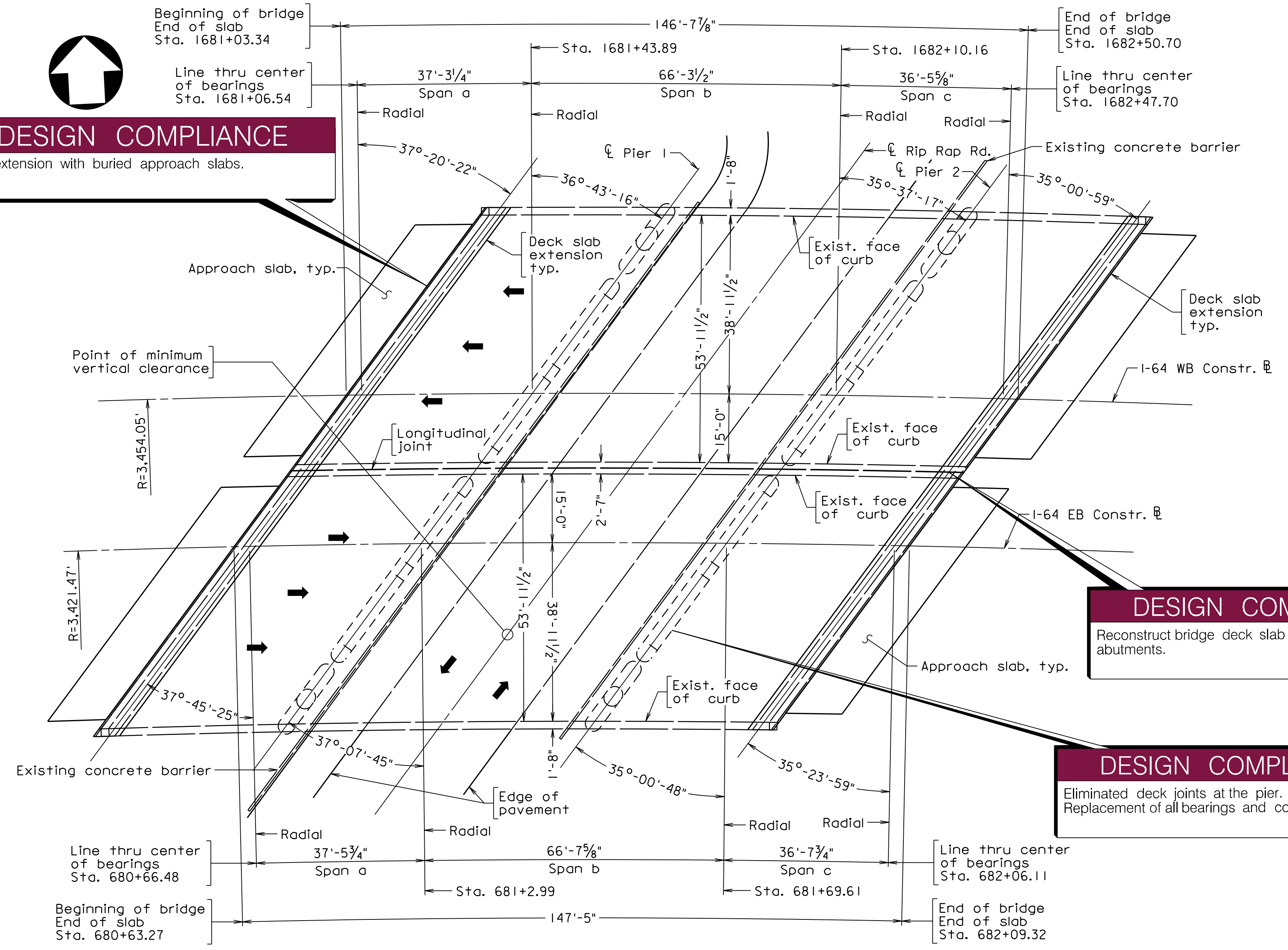
STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.
VA.	—	NHPP-064-3(522)	64	0064-114-374, B659	1

Federal Structure No. 000000000020320

FHWA Construction and Scour Code: X281-SN

Federal Stewardship and Oversight Code: N/A

UPC No. 119638



DESIGN COMPLIANCE

Deck extension with buried approach slabs.

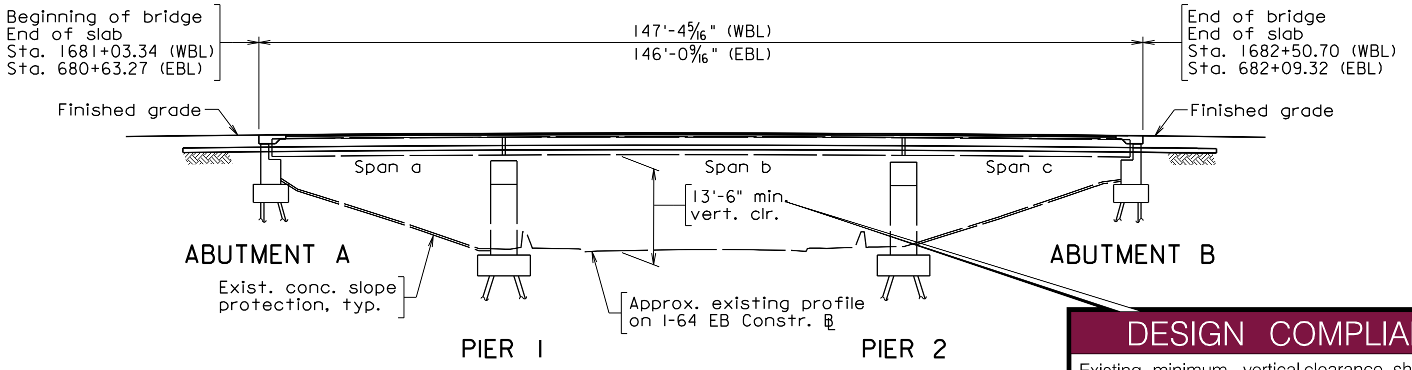
DESIGN COMPLIANCE

Reconstruct bridge deck slab joints at abutments.

DESIGN COMPLIANCE

Eliminated deck joints at the pier.
Replacement of all bearings and components.

PLAN



DESIGN COMPLIANCE

Existing minimum vertical clearance shall be retained, design exception has been granted to keep the existing clearance of 15'-0".

DEVELOPED SECTION ALONG EB I-64 CONSTR. ℄
EBL shown, WBL similar

Scale: ¹⁄₁₆" = 1'-0"

DESIGN EXCEPTION(S):

Reduced minimum vertical clearance from 16'-6" to 13'-6". Approved by State Structure and Bridge Engineer on February 17, 2021

Reduced left shoulder width to 2'-0". Approved by State Structure and Bridge Engineer on December 6, 2021.

GENERAL NOTES:

Width: 53'-11½" face-to-face of curbs, EB and WB lane.

Span layout: 37'-3¼" - 66'-3½" - 36-5⅝" WBL
37-5¾" - 66-7⅝" - 36-7¾" EBL

Capacity: HS20-44 loading (original design).

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, 2016; including all current revisions.

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

Bridge No. of existing bridge is 2809. Existing Plan Nos. are 171-11 and 171-11A.

Bridge Repair/Modification Notes:

All superstructure and substructure repairs will be performed on the existing bridges in accordance with the RFP Requirements. This includes existing deck slab milling, and hydro-demolition, patching and overlay; repairing existing beams; repairing spalls and cracks on abutments and piers; and repairing existing slope protection.

Joints at piers will be retrofitted in accordance with Structure and Bridge Manual Volume V, Part 2, File No. 32.09-2.

All existing bearings will be replaced utilizing steel-reinforced elastomeric pads.

Existing deck slab and abutments will be modified to eliminate the existing deck joints at abutments.

Replace the existing approach slabs with buried approach slabs extending from curb to curb.

Pier protection will be evaluated and installed as necessary.

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
PROPOSED BRIDGE REPAIRS

I-64 EBL/WBL OVER RIP RAP ROAD
CITY OF HAMPTON 0.2 MI. N. OF RTE. 137
PROJ. NO. 0064-114-375, B659

Recommended for Approval: _
District Project Development Engineer   Date

Approved: _
District Administrator   Date

Date: _ _ _ _ _ _ _ _ _ _

Sheet 1 of 4

No.	Description	Date

REVISIONS

For Table of Revisions, see Sheet 2.

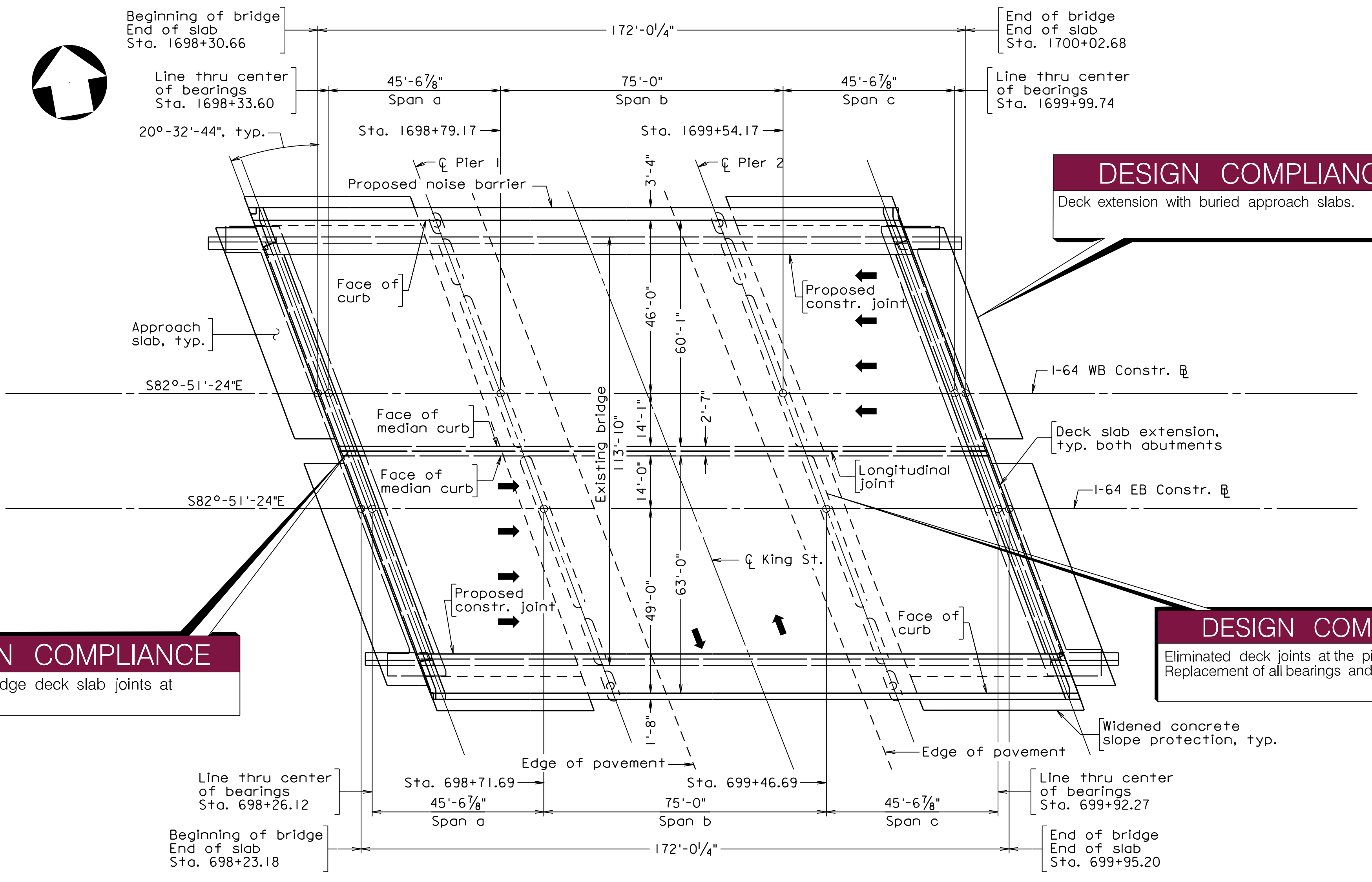
Dewberry Engineers Inc.
Fairfax, Virginia
STRUCTURAL ENGINEER

PLANS BY:	Dewberry Engineers Inc.
COORDINATED:	---
SUPERVISED:	---
DESIGNED:	---
DRAWN:	---
CHECKED:	---

01 - GPE.dgn

STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.
VA.	—	NHPP-064-3(522)	64	0064-114-374, B672	2

Federal Structure No. 000000000020318	FHWA Construction and Scour Code: X281-SN
Federal Stewardship and Oversight Code: N/A	UPC No. 119638



DESIGN COMPLIANCE

Deck extension with buried approach slabs.

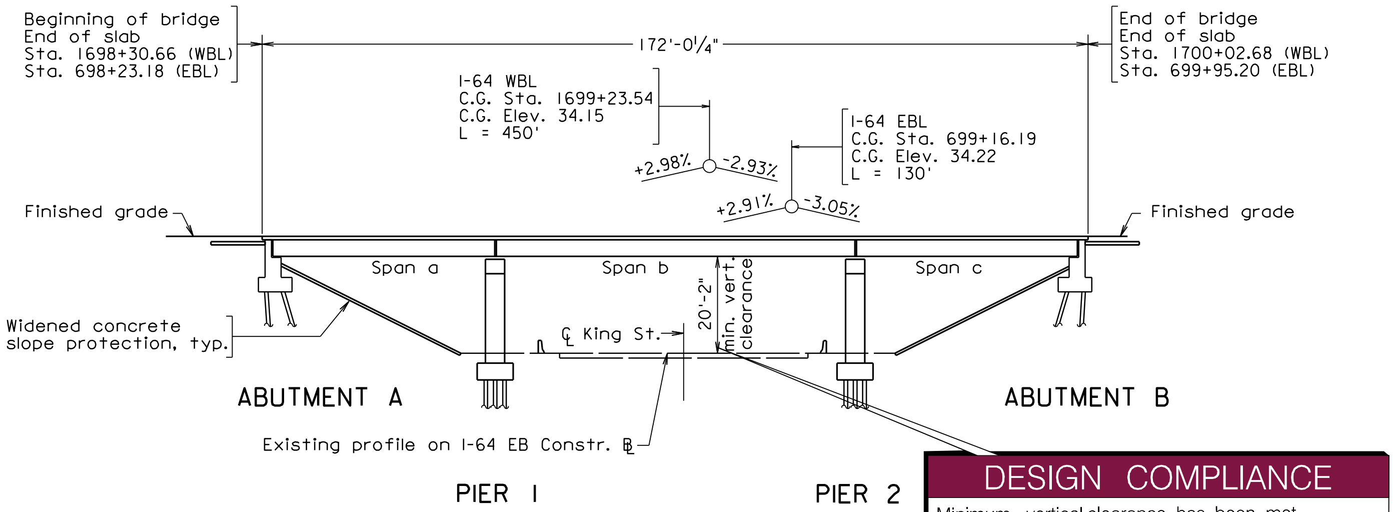
DESIGN COMPLIANCE

Reconstruct bridge deck slab joints at abutments.

DESIGN COMPLIANCE

Eliminated deck joints at the pier.
Replacement of all bearings and components.

PLAN



DESIGN COMPLIANCE

Minimum vertical clearance has been met.

DEVELOPED SECTION ALONG ℄

EBL shown WBL similar

Scale: 1" = 20'

DESIGN EXCEPTION(S):

Reduced left shoulder width to 2'-0".
Approved by State Structure and Bridge Engineer on December 6, 2021.

GENERAL NOTES:

Width: 60'-0" face-to-face of curbs, including widening of 9'-10½" on outside of WBL
65'-0" face-to-face of curbs, including widening of 14'-1½" on outside of EBL

Span layout: 45'-6⅞" - 75'-0" - 45'-6⅞" WBL
45'-6⅞" - 75'-0" - 45'-6⅞" EBL

Capacity: HL-91 loading (widening portion only).

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, 2016; including all current revisions.

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

Bridge No. of existing bridge is 2807. Existing Plan Nos. are 171-12 and 171-12A.

Bridge Repair/Modification Notes:

All superstructure and substructure repairs will be performed on the existing bridges in accordance with the RFP Requirements. This includes existing deck slab milling, and hydro-demolition, patching and overlay; repairing existing beams; repairing spalls and cracks on abutments and piers; and repairing existing slope protection.

Joints at piers will be retrofitted in accordance with Structure and Bridge Manual Volume V, Part 2, File No. 32.09-2.

All existing bearings will be replaced utilizing steel-reinforced elastomeric pads.

Existing deck slab and abutments will be modified to eliminate the existing deck joints at abutments.

Replace the existing approach slabs with buried approach slabs extending from curb to curb.

Pier protection will be evaluated and installed as necessary.

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
PROPOSED BRIDGE WIDENING AND REPAIR ON

I-64 EBL/WBL OVER KING STREET
CITY OF HAMPTON
PROJ. NO. 0064-114-375, B672

Recommended for Approval: ______________________ _____
District Project Development Engineer Date

Approved: ______________________ _____
District Administrator Date

Date: __________

Sheet 2 of 4

No.	Description	Date

REVISIONS

For Table of Revisions, see Sheet 2.

01 - GPE.dgn

Dewberry Engineers Inc.
Fairfax, Virginia
STRUCTURAL ENGINEER

PLANS BY:	Dewberry Engineers Inc.
COORDINATED:	---
SUPERVISED:	---
DESIGNED:	---
DRAWN:	---
CHECKED:	---

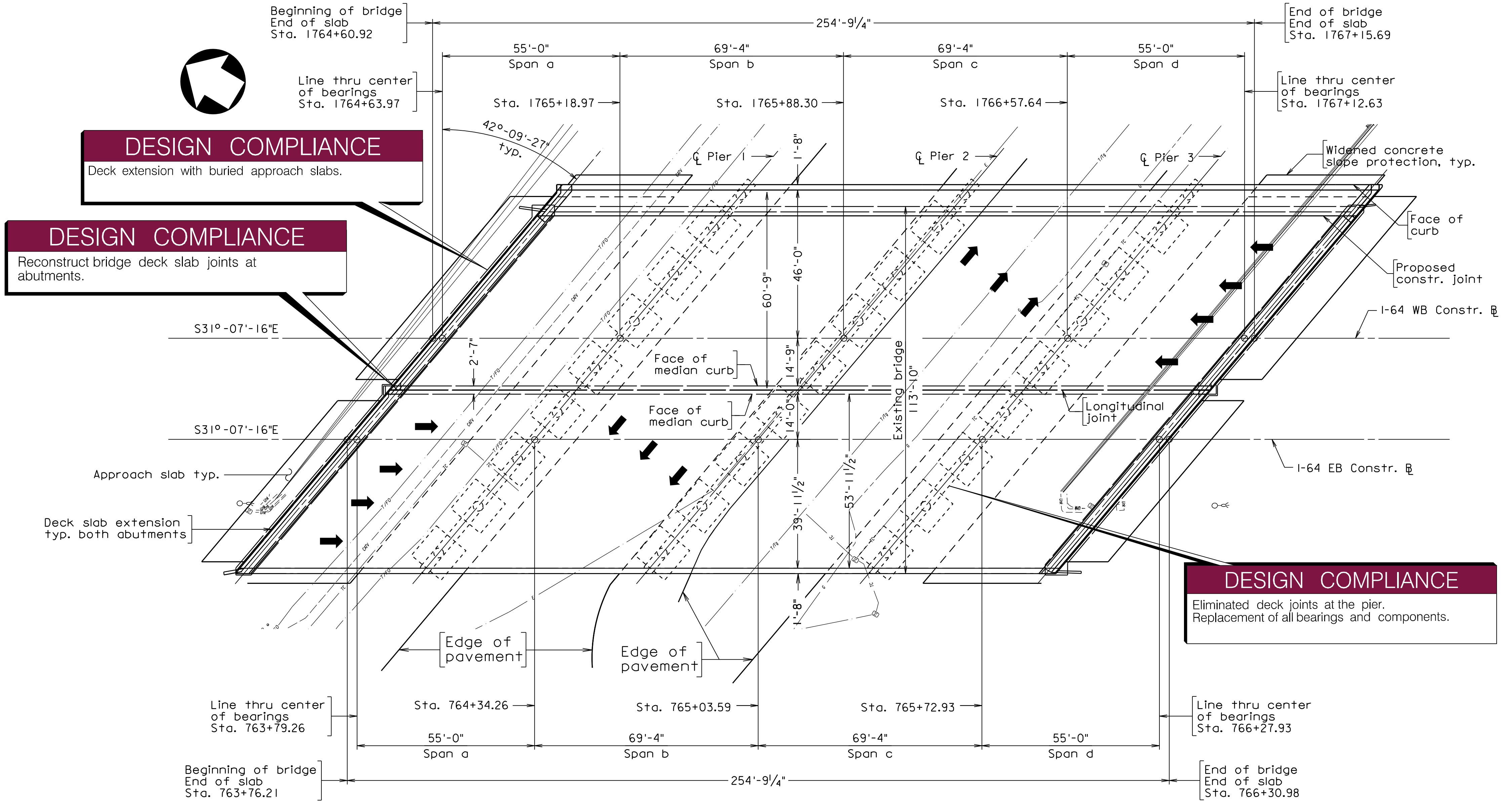
STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.
VA.	—	NHPP-064-3(522)	64	0064-114-374, B676	3

Federal Structure No. 00000000020312

FHWA Construction and Scour Code: X271-SN

Federal Stewardship and Oversight Code: N/A

UPC No. 119638



DESIGN COMPLIANCE

Deck extension with buried approach slabs.

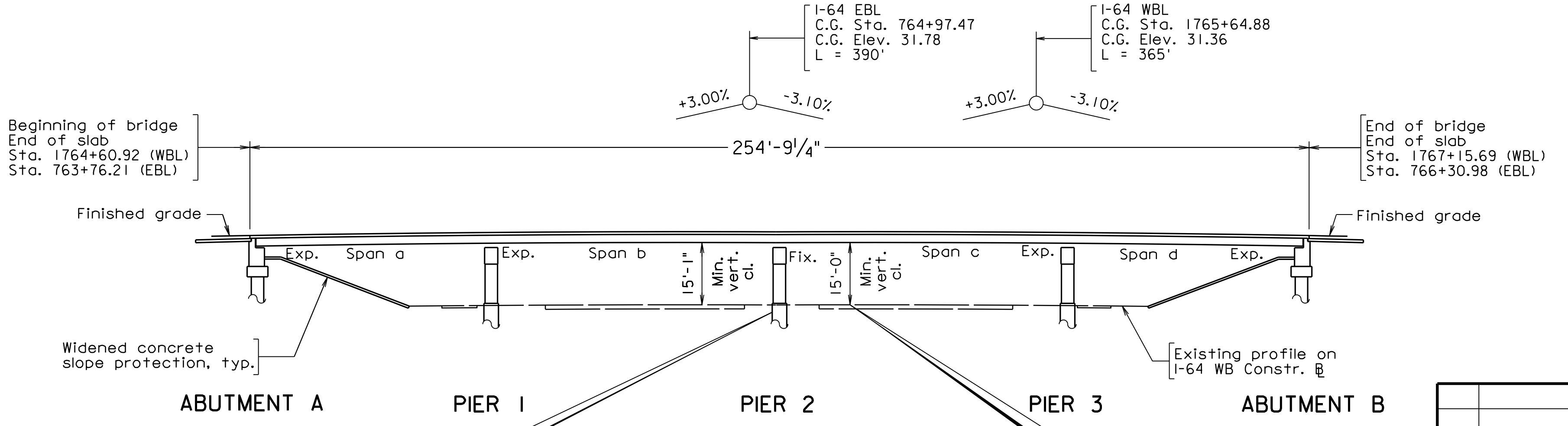
DESIGN COMPLIANCE

Reconstruct bridge deck slab joints at abutments.

DESIGN COMPLIANCE

Eliminated deck joints at the pier.
Replacement of all bearings and components.

PLAN



DESIGN COMPLIANCE

Widened portion of the bridge shall utilize drilled shafts.

DEVELOPED SECTION ALONG ℄

EBL shown, WBL similar

DESIGN COMPLIANCE

Existing minimum vertical clearance shall be retained, design exception has been granted to keep the existing clearance of 15'-0".

Scale: 1" = 20'

DESIGN EXCEPTION(S):

Reduced minimum vertical clearance from 16'-6" to 15'-0". Approved by State Structure and Bridge Engineer on December 12, 2021.

Reduced left shoulder width to 2'-0". Approved by State Structure and Bridge Engineer on December 6, 2021.

GENERAL NOTES:

Width: 62'-9" face-to-face of curbs, including widening of 11'-0½"
on outside of WBL
53'-10½" face-to-face of curbs, EBL

Span layout: 55'-0" - 69'-4" - 69'-4" - 55'-0" WBL
55'-0" - 69'-4" - 69'-4" - 55'-0" EBL

Capacity: HL-91 loading (widening portion only).

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, 2016; including all current revisions.

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

Bridge No. of existing bridge is 2802. Existing Plan Nos. are 171-15A.

Bridge Repair/Modification Notes:

All superstructure and substructure repairs will be performed on the existing bridges in accordance with the RFP Requirements. This includes existing deck slab milling, and hydro-demolition, patching and overlay; repairing existing beams; repairing spalls and cracks on abutments and piers; and repairing existing slope protection.

Joints at piers will be retrofitted in accordance with Structure and Bridge Manual Volume V, Part 2, File No. 32.09-2.

All existing bearings will be replaced utilizing steel-reinforced elastomeric pads.

Existing deck slab and abutments will be modified to eliminate the existing deck joints at abutments.

Replace the existing approach slabs with buried approach slabs extending from curb to curb.

Pier protection will be evaluated and installed as necessary.

SHIRLEY CONTRACTING COMPANY, LLC
BRANCH CIVIL
Dewberry
McLean
STV 100 Years

VDOT

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
PROPOSED BRIDGE WIDENING AND REPAIR ON
I-64 EBL/WBL OVER SETTLER'S
LANDING ROAD
CITY OF HAMPTON - 2.02 MI. E. INT. RTE 134
PROJ. NO. 0064-114-374, B676

Recommended for Approval: ______________________ ______
District Project Development Engineer Date

Approved: ______________________ ______
District Administrator Date

Date: __________

No.	Description	Date
REVISIONS		

For Table of Revisions, see Sheet 2.

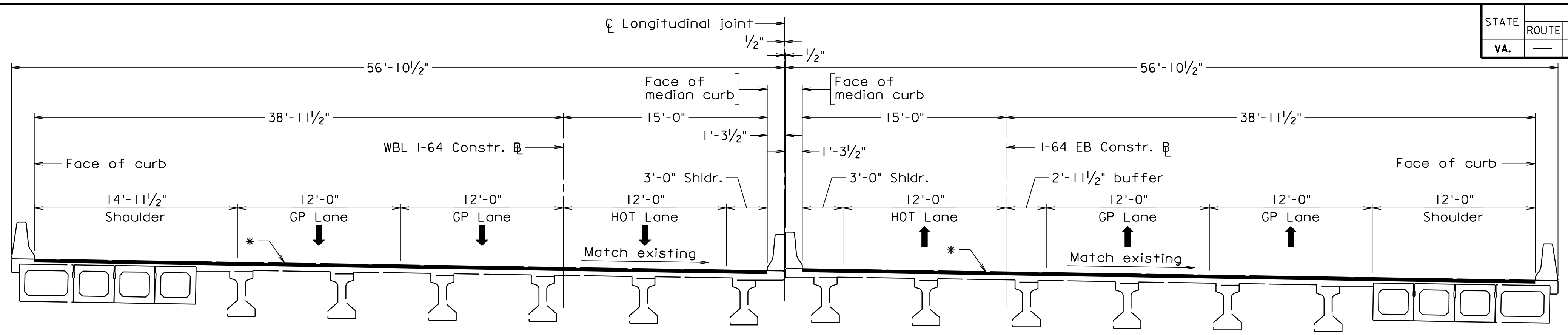
Dewberry Engineers Inc.
Fairfax, Virginia
STRUCTURAL ENGINEER

PLANS BY:	Dewberry Engineers Inc.
COORDINATED:	---
SUPERVISED:	---
DESIGNED:	---
DRAWN:	---
CHECKED:	---

Sheet 3 of 4

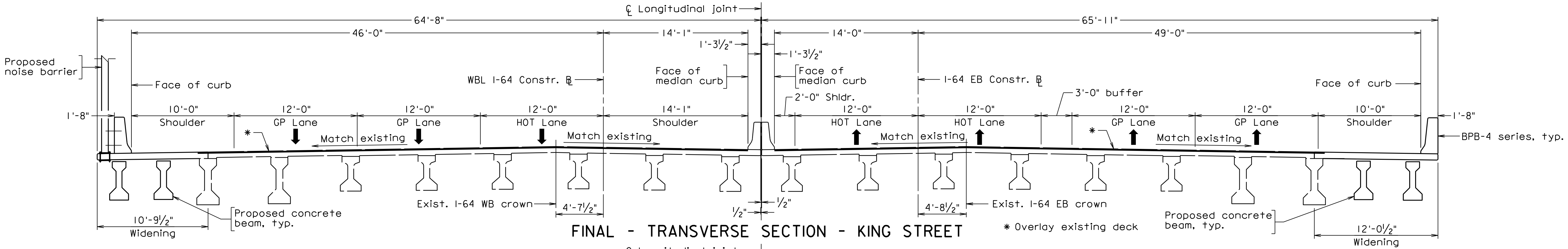
01 - GPE.dgn

STATE	FEDERAL AID		STATE		SHEET NO.
	ROUTE	PROJECT	ROUTE	PROJECT	
VA.	—		64	0064-114-374, B659, B672, B676	4



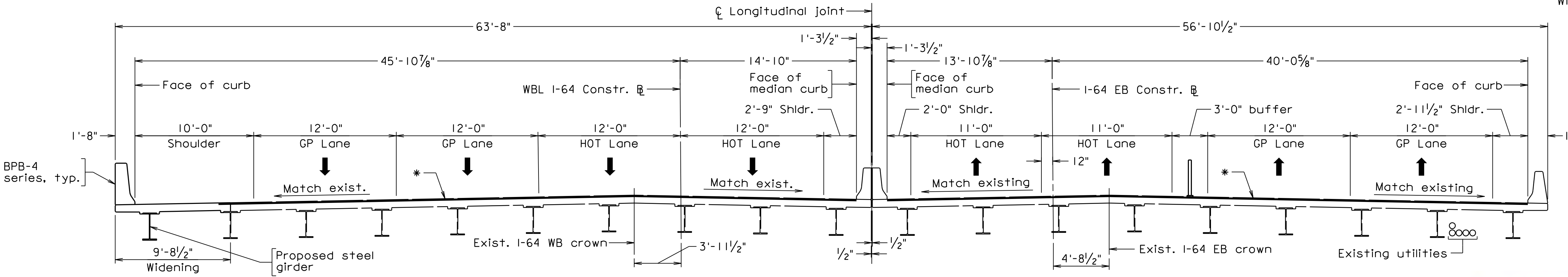
FINAL - TRANSVERSE SECTION - RIP RAP ROAD

* Overlay existing deck



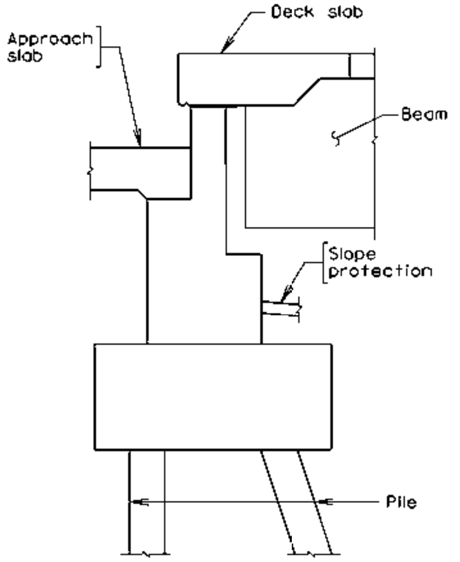
FINAL - TRANSVERSE SECTION - KING STREET

* Overlay existing deck



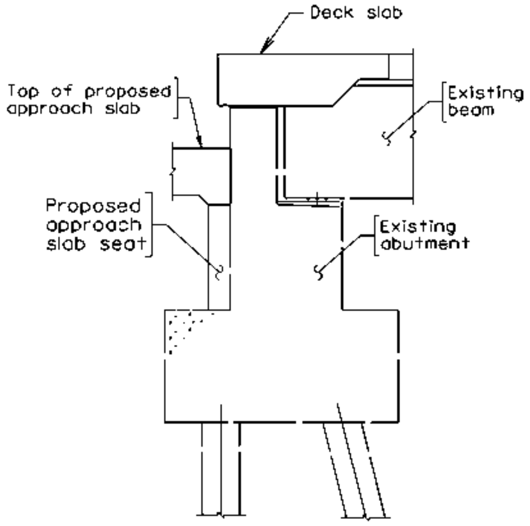
FINAL - TRANSVERSE SECTION - SETTLERS LANDING ROAD

* Overlay existing deck



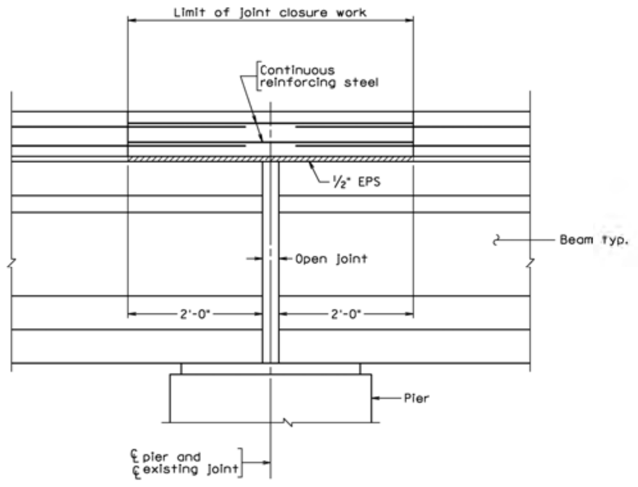
PROPOSED ABUTMENT SECTION

Not to scale



MODIFIED EXISTING ABUTMENT SECTION

Not to scale



JOINT CLOSURE DETAIL AT PIERS

Minimum limits of joint closure are shown, actual limits will vary throughout the bridge.

Scale: $\frac{3}{16}$" = 1'-0" unless otherwise noted

02 - Trans.Sect.All.Bridges.dgn

DEWBERRY ENGINEERS INC.
FAIRFAX, VA
STRUCTURAL ENGINEER

No.	Description	Date
Revisions		

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

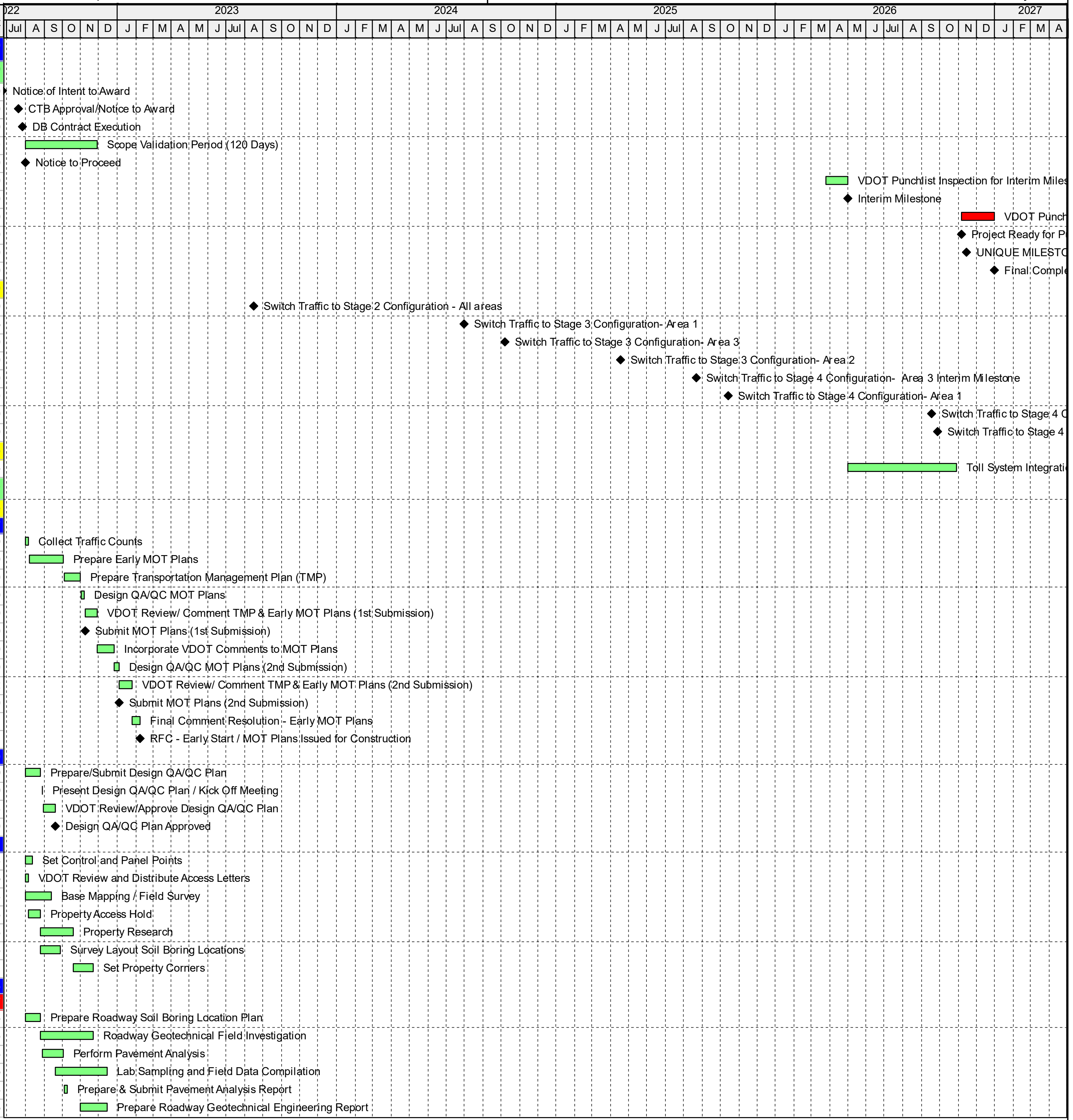
STRUCTURE AND BRIDGE DIVISION

TRANSVERSE SECTIONS

Designed: DLS Drawn: DLS Checked: MC	Date	Plan No.	Sheet No.
	Apr. 2022		4 of 4

4.6.1 - Proposal Schedule

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
I-64 HAMPTON ROADS EXPRESS LANES (HREL) SEGMENT 4C- PROPC		1068	24-Jun-22	30-Dec-26	0
SCHEDULE MILESTONES		1068	24-Jun-22	30-Dec-26	0
MLS-1000	Notice of Intent to Award	0	24-Jun-22*		0
MLS-1010	CTB Approval/Notice to Award	0	20-Jul-22*		0
MLS-1020	DB Contract Execution	0	27-Jul-22*		0
MLS-1030	Scope Validation Period (120 Days)	120	01-Aug-22	28-Nov-22	150
MLS-1040	Notice to Proceed	0	01-Aug-22*		0
MLS-1060	VDOT Punchlist Inspection for Interim Milestone	25	26-Mar-26	01-May-26	0
MLS-1070	Interim Milestone	0		01-May-26*	0
MLS-1080	VDOT Punchlist Inspection	30	06-Nov-26	30-Dec-26	0
MLS-1090	Project Ready for Punchlist Inspection	0	06-Nov-26		0
MLS-1280	UNIQUE MILESTONE #1 -All Lanes Open to Traffic	0		15-Nov-26*	0
MLS-1100	Final Completion	0		30-Dec-26*	0
Construction Key Dates		739	15-Aug-23	28-Sep-26	0
MLS-1200	Switch Traffic to Stage 2 Configuration - All areas	0	15-Aug-23		0
MLS-1210	Switch Traffic to Stage 3 Configuration- Area 1	0	31-Jul-24		5
MLS-1250	Switch Traffic to Stage 3 Configuration- Area 3	0	07-Oct-24		0
MLS-1240	Switch Traffic to Stage 3 Configuration- Area 2	0	17-Apr-25		0
MLS-1220	Switch Traffic to Stage 4 Configuration- Area 3 Interim Milestone	0	21-Aug-25		0
MLS-1230	Switch Traffic to Stage 4 Configuration- Area 1	0	13-Oct-25		179
MLS-1260	Switch Traffic to Stage 4 Configuration - Area 2	0	18-Sep-26		0
MLS-1270	Switch Traffic to Stage 4 Configuration - Area 3 Remainder	0	28-Sep-26		0
Toll System Integration		180	01-May-26	28-Oct-26	63
ITS-1000	Toll System Integration (by others)	180	01-May-26	28-Oct-26	63
DESIGN		246	01-Aug-22	15-Aug-23	156
Preliminary Design		226	01-Aug-22	18-Jul-23	16
Early Start / MOT Plans (Stage 1)		121	01-Aug-22	08-Feb-23	17
DGN-1000	Collect Traffic Counts	5	01-Aug-22	05-Aug-22	0
DGN-1080	Prepare Early MOT Plans	40	08-Aug-22	03-Oct-22	0
DGN-1170	Prepare Transportation Management Plan (TMP)	20	04-Oct-22	31-Oct-22	0
DGN-1210	Design QA/QC MOT Plans	5	01-Nov-22	07-Nov-22	0
DGN-1230	VDOT Review/ Comment TMP & Early MOT Plans (1st Submission)	21	08-Nov-22	28-Nov-22	0
DGN-1220	Submit MOT Plans (1st Submission)	0	08-Nov-22		0
DGN-1250	Incorporate VDOT Comments to MOT Plans	20	28-Nov-22	27-Dec-22	0
DGN-1280	Design QA/QC MOT Plans (2nd Submission)	5	27-Dec-22	04-Jan-23	0
DGN-1300	VDOT Review/ Comment TMP & Early MOT Plans (2nd Submission)	21	04-Jan-23	25-Jan-23	32
DGN-1310	Submit MOT Plans (2nd Submission)	0	04-Jan-23		0
DGN-1320	Final Comment Resolution - Early MOT Plans	10	25-Jan-23	08-Feb-23	21
DGN-1330	RFC - Early Start / MOT Plans Issued for Construction	0	08-Feb-23		21
Design QA/QC Plan		34	01-Aug-22	19-Sep-22	10
DGN-1010	Prepare/Submit Design QA/QC Plan	20	01-Aug-22	26-Aug-22	9
DGN-1120	Present Design QA/QC Plan / Kick Off Meeting	1	29-Aug-22	29-Aug-22	9
DGN-1140	VDOT Review/Approve Design QA/QC Plan	21	30-Aug-22	19-Sep-22	14
DGN-1150	Design QA/QC Plan Approved	0		19-Sep-22	10
Survey and Mapping		77	01-Aug-22	22-Nov-22	51
DGN-1020	Set Control and Panel Points	10	01-Aug-22	12-Aug-22	14
DGN-1030	VDOT Review and Distribute Access Letters	5	01-Aug-22	05-Aug-22	5
DGN-1040	Base Mapping / Field Survey	30	01-Aug-22	13-Sep-22	14
DGN-1070	Property Access Hold	15	05-Aug-22	26-Aug-22	3
DGN-1090	Property Research	38	26-Aug-22	20-Oct-22	58
DGN-1100	Survey Layout Soil Boring Locations	20	26-Aug-22	27-Sep-22	6
DGN-1190	Set Property Corners	20	20-Oct-22	22-Nov-22	51
Geotechnical investigations and Reports		226	01-Aug-22	18-Jul-23	16
Roadway		140	01-Aug-22	14-Mar-23	27
DGN-1060	Prepare Roadway Soil Boring Location Plan	20	01-Aug-22	26-Aug-22	33
DGN-1110	Roadway Geotechnical Field Investigation	60	26-Aug-22	21-Nov-22	6
DGN-1130	Perform Pavement Analysis	25	29-Aug-22	03-Oct-22	43
DGN-1160	Lab Sampling and Field Data Compilation	60	19-Sep-22	14-Dec-22	25
DGN-1180	Prepare & Submit Pavement Analysis Report	5	04-Oct-22	10-Oct-22	43
DGN-1200	Prepare Roadway Geotechnical Engineering Report	30	31-Oct-22	14-Dec-22	25



🟦 Actual Work
🟥 Critical Remaining Work
🟩 Remaining Work
◆ Milestone

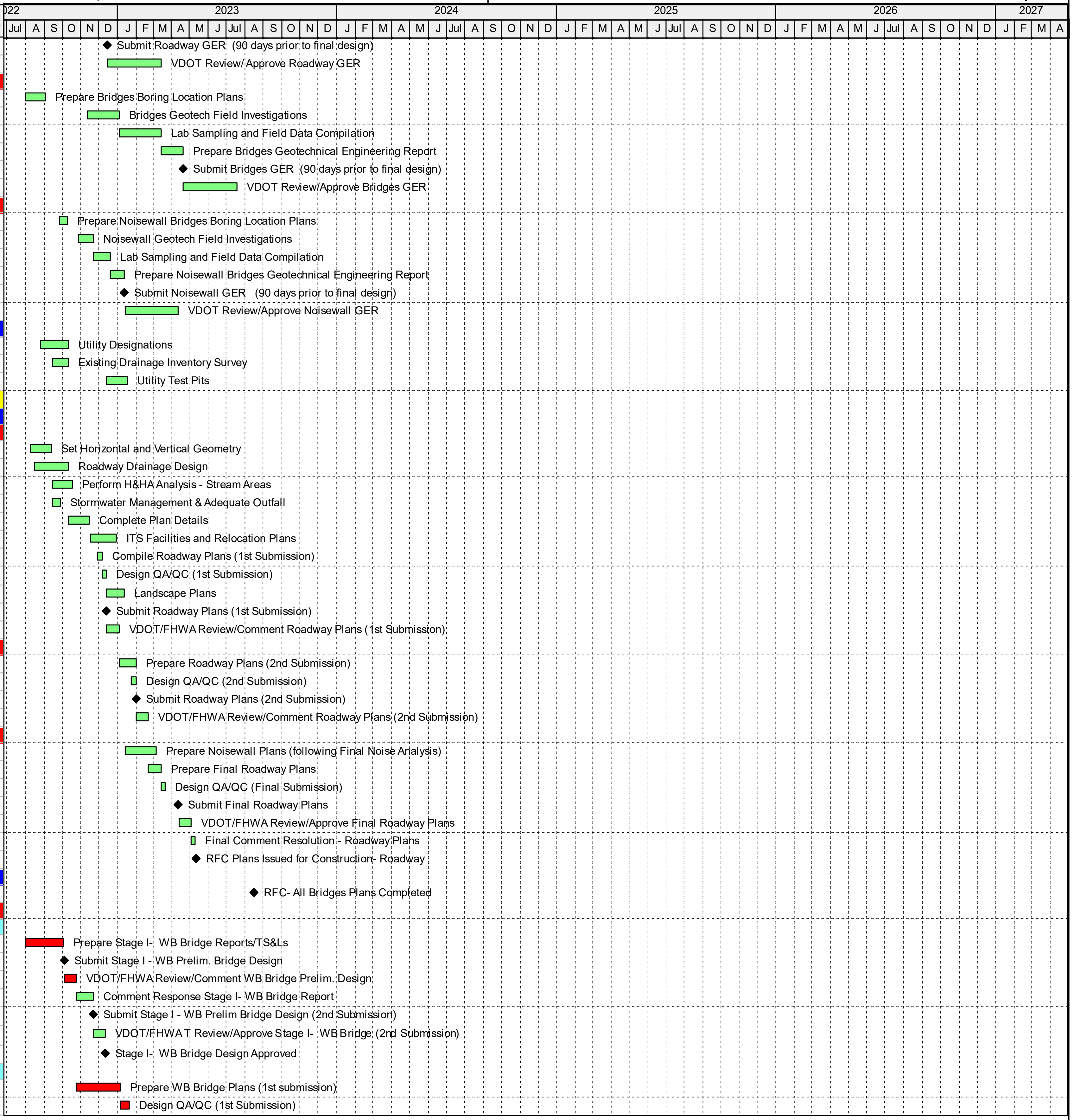
SHIRLEY CONTRACTING COMPANY, LLC
BRANCH CIVIL

C00117841DB111- I-64 Hampton Roads Express Lanes (HREL) Segment 4C

4.6.1 Proposal Schedule

12- May- 22

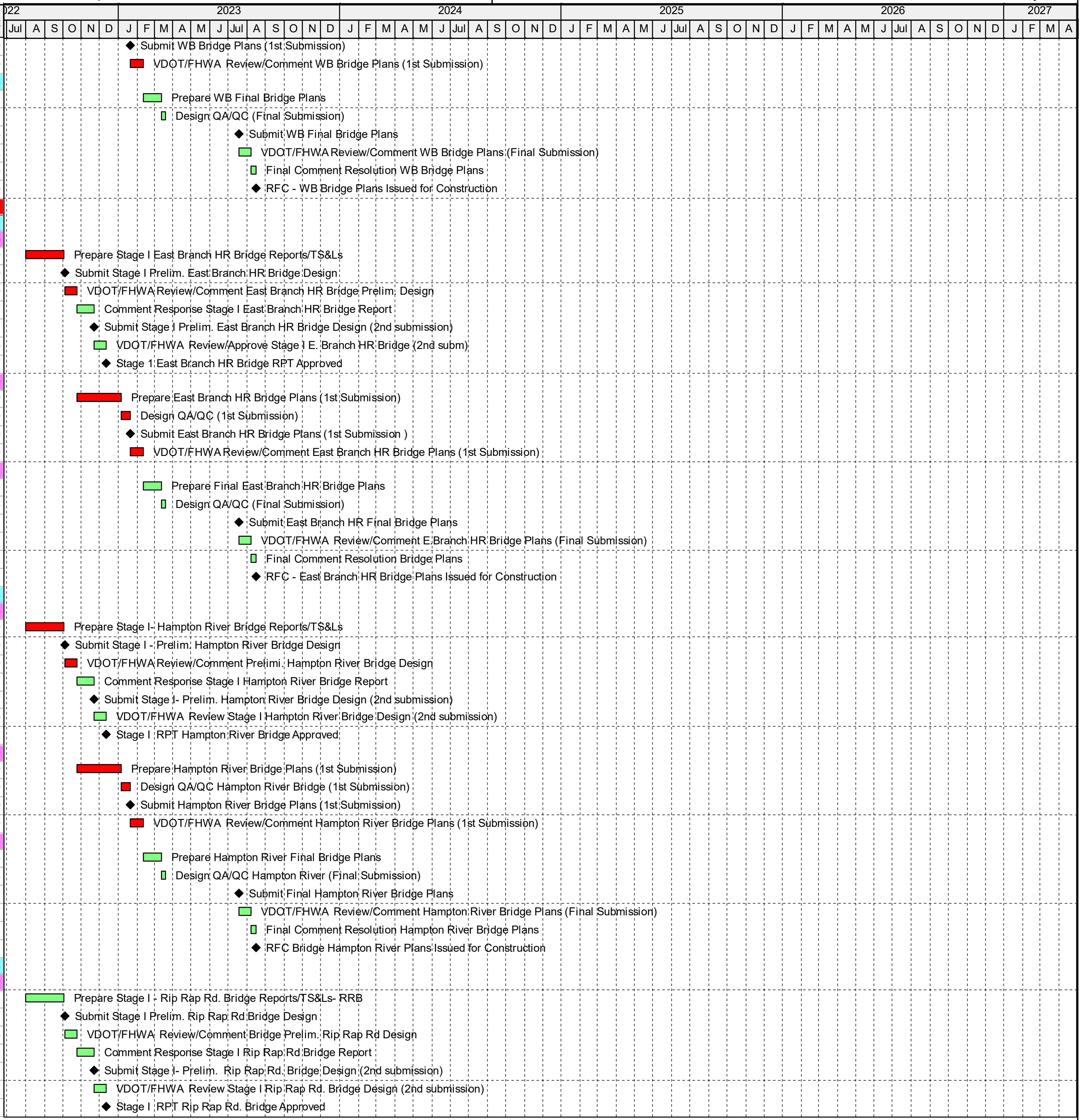
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
DGN-1260	Submit Roadway GER (90 days prior to final design)	0	14-Dec-22		25
DGN-1270	VDOT Review/ Approve Roadway GER	90	14-Dec-22	14-Mar-23	37
Bridges		226	01-Aug-22	18-Jul-23	16
DGN-1050	Prepare Bridges Boring Location Plans	25	01-Aug-22	02-Sep-22	26
DGN-1240	Bridges Geotech Field Investigations	30	11-Nov-22	03-Jan-23	16
DGN-1290	Lab Sampling and Field Data Compilation	40	03-Jan-23	15-Mar-23	16
DGN-1340	Prepare Bridges Geotechnical Engineering Report	25	15-Mar-23	19-Apr-23	16
DGN-1350	Submit Bridges GER (90 days prior to final design)	0	19-Apr-23		16
DGN-1360	VDOT Review/Approve Bridges GER	90	20-Apr-23	18-Jul-23	22
Noise Barriers		122	26-Sep-22	12-Apr-23	6
DGN-1500	Prepare Noisewall Bridges Boring Location Plans	10	26-Sep-22	10-Oct-22	3
DGN-1760	Noisewall Geotech Field Investigations	14	27-Oct-22	21-Nov-22	6
DGN-1810	Lab Sampling and Field Data Compilation	17	21-Nov-22	20-Dec-22	6
DGN-2030	Prepare Noisewall Bridges Geotechnical Engineering Report	15	20-Dec-22	12-Jan-23	6
DGN-2110	Submit Noisewall GER (90 days prior to final design)	0	12-Jan-23		6
DGN-2120	VDOT Review/Approve Noisewall GER	90	13-Jan-23	12-Apr-23	8
Utility Designations and Test-Pits		89	26-Aug-22	17-Jan-23	79
DGN-1460	Utility Designations	30	26-Aug-22	11-Oct-22	118
DGN-1490	Existing Drainage Inventory Survey	20	14-Sep-22	11-Oct-22	16
DGN-2010	Utility Test Pits	20	13-Dec-22	17-Jan-23	79
Final Design		246	01-Aug-22	15-Aug-23	156
Roadway Design		173	09-Aug-22	11-May-23	6
First Submission (60 %)		100	09-Aug-22	12-Jan-23	27
DGN-1440	Set Horizontal and Vertical Geometry	25	09-Aug-22	13-Sep-22	22
DGN-1450	Roadway Drainage Design	40	16-Aug-22	11-Oct-22	17
DGN-1470	Perform H&HA Analysis - Stream Areas	25	14-Sep-22	18-Oct-22	92
DGN-1480	Stormwater Management & Adequate Outfall	10	14-Sep-22	27-Sep-22	27
DGN-1630	Complete Plan Details	25	12-Oct-22	15-Nov-22	17
DGN-1770	ITS Facilities and Relocation Plans	30	16-Nov-22	30-Dec-22	37
DGN-1910	Compile Roadway Plans (1st Submission)	6	28-Nov-22	06-Dec-22	10
DGN-1920	Design QA/QC (1st Submission)	5	06-Dec-22	13-Dec-22	10
DGN-1990	Landscape Plans	20	13-Dec-22	12-Jan-23	29
DGN-2000	Submit Roadway Plans (1st Submission)	0	13-Dec-22		10
DGN-2020	VDOT/FHWA Review/Comment Roadway Plans (1st Submission)	21	14-Dec-22	03-Jan-23	15
Second Submission (90%)		27	03-Jan-23	21-Feb-23	19
DGN-2040	Prepare Roadway Plans (2nd Submission)	20	03-Jan-23	31-Jan-23	21
DGN-2260	Design QA/QC (2nd Submission)	5	24-Jan-23	31-Jan-23	21
DGN-2270	Submit Roadway Plans (2nd Submission)	0	31-Jan-23		21
DGN-2280	VDOT/FHWA Review/Comment Roadway Plans (2nd Submission)	21	01-Feb-23	21-Feb-23	30
Final Submission		72	13-Jan-23	11-May-23	6
DGN-2130	Prepare Noisewall Plans (following Final Noise Analysis)	35	13-Jan-23	06-Mar-23	28
DGN-2350	Prepare Final Roadway Plans	15	21-Feb-23	14-Mar-23	22
DGN-2420	Design QA/QC (Final Submission)	5	14-Mar-23	21-Mar-23	22
DGN-2430	Submit Final Roadway Plans	0	12-Apr-23		6
DGN-2440	VDOT/FHWA Review/Approve Final Roadway Plans	21	13-Apr-23	03-May-23	8
DGN-2450	Final Comment Resolution - Roadway Plans	5	04-May-23	10-May-23	6
DGN-2460	RFC Plans Issued for Construction- Roadway	0	11-May-23		6
Bridges Design		246	01-Aug-22	15-Aug-23	156
DGN-2680	RFC- All Bridges Plans Completed	0	15-Aug-23		156
Westbound Bridges		246	01-Aug-22	15-Aug-23	16
Stage I- Preliminary Submissions		88	01-Aug-22	12-Dec-22	15
DGN-1380	Prepare Stage I- WB Bridge Reports/TS&Ls	45	01-Aug-22	03-Oct-22	0
DGN-1510	Submit Stage I - WB Prelim. Bridge Design	0	04-Oct-22		0
DGN-1520	VDOT/FHWA Review/Comment WB Bridge Prelim. Design	21	04-Oct-22	24-Oct-22	0
DGN-1640	Comment Response Stage I- WB Bridge Report	20	24-Oct-22	21-Nov-22	17
DGN-1780	Submit Stage I - WB Prelim Bridge Design (2nd Submission)	0	21-Nov-22		17
DGN-1850	VDOT/FHWA T Review/Approve Stage I- WB Bridge (2nd Submission)	21	22-Nov-22	12-Dec-22	27
DGN-1980	Stage I- WB Bridge Design Approved	0		12-Dec-22	27
First Submission		64	24-Oct-22	10-Feb-23	0
DGN-1650	Prepare WB Bridge Plans (1st submission)	50	24-Oct-22	06-Jan-23	0
DGN-2050	Design QA/QC (1st Submission)	10	06-Jan-23	20-Jan-23	0



🟦 Actual Work 🟥 Critical Remaining Work
🟩 Remaining Work ◆ ◆ Milestone

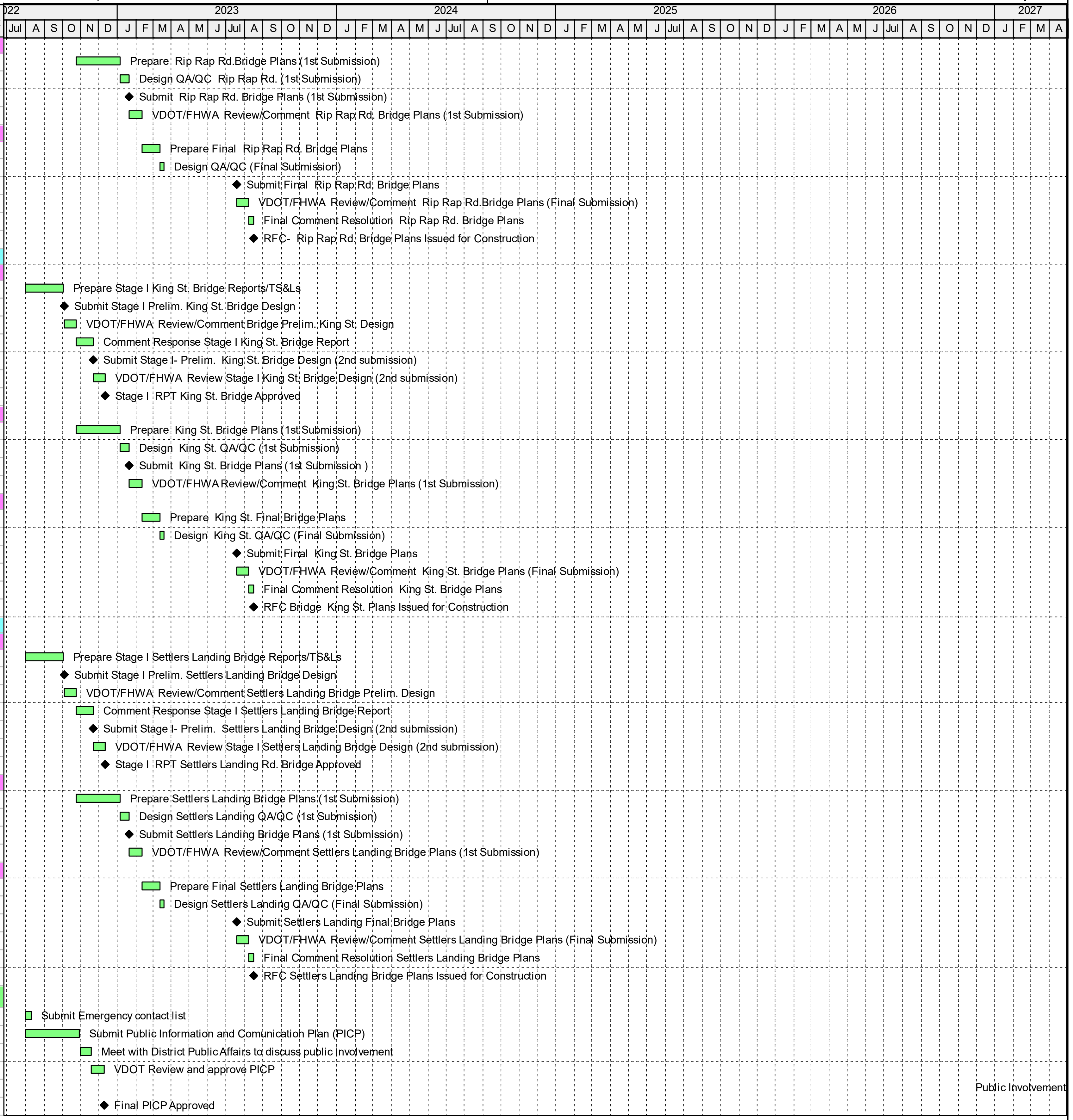
SHIRLEY CONTRACTING COMPANY, LLC BRANCH CIVIL®

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
DGN-2140	Submit WB Bridge Plans (1st Submission)	0	20-Jan-23		0
DGN-2200	VDOT/FHWA Review/Comment WB Bridge Plans (1st Submission)	21	21-Jan-23	10-Feb-23	0
Final Submission		123	10-Feb-23	15-Aug-23	16
DGN-2290	Prepare WB Final Bridge Plans	20	10-Feb-23	13-Mar-23	100
DGN-2360	Design QA/QC (Final Submission)	5	13-Mar-23	20-Mar-23	100
DGN-2470	Submit WB Final Bridge Plans	0	18-Jul-23		16
DGN-2530	VDOT/FHWA Review/Comment WB Bridge Plans (Final Submission)	21	19-Jul-23	08-Aug-23	22
DGN-2590	Final Comment Resolution WB Bridge Plans	5	08-Aug-23	15-Aug-23	16
DGN-2650	RFC - WB Bridge Plans Issued for Construction	0	15-Aug-23		16
Eastbound Bridges		246	01-Aug-22	15-Aug-23	156
East Branch Hampton River Bridge		246	01-Aug-22	15-Aug-23	156
Stage I- Preliminary Submissions		88	01-Aug-22	12-Dec-22	15
DGN-1400	Prepare Stage I East Branch HR Bridge Reports/TS&Ls	45	01-Aug-22	03-Oct-22	0
DGN-1550	Submit Stage I Prelim. East Branch HR Bridge Design	0	04-Oct-22		0
DGN-1560	VDOT/FHWA Review/Comment East Branch HR Bridge Prelim. Design	21	04-Oct-22	24-Oct-22	0
DGN-1680	Comment Response Stage I East Branch HR Bridge Report	20	24-Oct-22	21-Nov-22	17
DGN-1800	Submit Stage I Prelim. East Branch HR Bridge Design (2nd submission)	0	21-Nov-22		17
DGN-1870	VDOT/FHWA Review/Approve Stage I E. Branch HR Bridge (2nd subm)	21	22-Nov-22	12-Dec-22	25
DGN-1940	Stage 1 East Branch HR Bridge RPT Approved	0		12-Dec-22	17
First Submission		64	24-Oct-22	10-Feb-23	0
DGN-1690	Prepare East Branch HR Bridge Plans (1st Submission)	50	24-Oct-22	06-Jan-23	0
DGN-2070	Design QA/QC (1st Submission)	10	06-Jan-23	20-Jan-23	0
DGN-2160	Submit East Branch HR Bridge Plans (1st Submission)	0	20-Jan-23		0
DGN-2220	VDOT/FHWA Review/Comment East Branch HR Bridge Plans (1st Submis	21	21-Jan-23	10-Feb-23	0
Final Submission		123	10-Feb-23	15-Aug-23	156
DGN-2310	Prepare Final East Branch HR Bridge Plans	20	10-Feb-23	13-Mar-23	255
DGN-2380	Design QA/QC (Final Submission)	5	13-Mar-23	20-Mar-23	255
DGN-2490	Submit East Branch HR Final Bridge Plans	0	18-Jul-23		171
DGN-2550	VDOT/FHWA Review/Comment E.Branch HR Bridge Plans (Final Submis	21	19-Jul-23	08-Aug-23	247
DGN-2610	Final Comment Resolution Bridge Plans	5	08-Aug-23	15-Aug-23	171
DGN-2670	RFC - East Branch HR Bridge Plans Issued for Construction	0	15-Aug-23		171
Hampton River Bridge		246	01-Aug-22	15-Aug-23	156
Stage I- Preliminary Submissions		88	01-Aug-22	12-Dec-22	15
DGN-1390	Prepare Stage I- Hampton River Bridge Reports/TS&Ls	45	01-Aug-22	03-Oct-22	0
DGN-1530	Submit Stage I - Prelim. Hampton River Bridge Design	0	04-Oct-22		0
DGN-1540	VDOT/FHWA Review/Comment Prelimi. Hampton River Bridge Design	21	04-Oct-22	24-Oct-22	0
DGN-1660	Comment Response Stage I Hampton River Bridge Report	20	24-Oct-22	21-Nov-22	17
DGN-1790	Submit Stage I- Prelim. Hampton River Bridge Design (2nd submission)	0	21-Nov-22		17
DGN-1860	VDOT/FHWA Review Stage I Hampton River Bridge Design (2nd submiss	21	22-Nov-22	12-Dec-22	25
DGN-1930	Stage I RPT Hampton River Bridge Approved	0		12-Dec-22	17
First Submission		64	24-Oct-22	10-Feb-23	0
DGN-1670	Prepare Hampton River Bridge Plans (1st Submission)	50	24-Oct-22	06-Jan-23	0
DGN-2060	Design QA/QC Hampton River Bridge (1st Submission)	10	06-Jan-23	20-Jan-23	0
DGN-2150	Submit Hampton River Bridge Plans (1st Submission)	0	20-Jan-23		0
DGN-2210	VDOT/FHWA Review/Comment Hampton River Bridge Plans (1st Submis	21	21-Jan-23	10-Feb-23	0
Final Submission		123	10-Feb-23	15-Aug-23	156
DGN-2300	Prepare Hampton River Final Bridge Plans	20	10-Feb-23	13-Mar-23	255
DGN-2370	Design QA/QC Hampton River (Final Submission)	5	13-Mar-23	20-Mar-23	255
DGN-2480	Submit Final Hampton River Bridge Plans	0	18-Jul-23		171
DGN-2540	VDOT/FHWA Review/Comment Hampton River Bridge Plans (Final Subm	21	19-Jul-23	08-Aug-23	247
DGN-2600	Final Comment Resolution Hampton River Bridge Plans	5	08-Aug-23	15-Aug-23	171
DGN-2660	RFC Bridge Hampton River Plans Issued for Construction	0	15-Aug-23		171
Rip Rap Road Bridge		246	01-Aug-22	15-Aug-23	66
Stage I- Preliminary Submissions		88	01-Aug-22	12-Dec-22	159
DGN-1410	Prepare Stage I - Rip Rap Rd. Bridge Reports/TS&Ls- RRB	45	01-Aug-22	03-Oct-22	123
DGN-1570	Submit Stage I Prelim. Rip Rap Rd Bridge Design	0	04-Oct-22		156
DGN-1580	VDOT/FHWA Review/Comment Bridge Prelim. Rip Rap Rd Design	21	04-Oct-22	24-Oct-22	225
DGN-1700	Comment Response Stage I Rip Rap Rd Bridge Report	20	24-Oct-22	21-Nov-22	170
DGN-1820	Submit Stage I- Prelim. Rip Rap Rd. Bridge Design (2nd submission)	0	21-Nov-22		170
DGN-1880	VDOT/FHWA Review Stage I Rip Rap Rd. Bridge Design (2nd submission)	21	22-Nov-22	12-Dec-22	247
DGN-1950	Stage I RPT Rip Rap Rd. Bridge Approved	0		12-Dec-22	172



🟦 Actual Work	🟥 Critical Remaining Work
🟩 Remaining Work ◆	◆ Milestone

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
First Submission		64	24-Oct-22	10-Feb-23	148
DGN-1710	Prepare Rip Rap Rd.Bridge Plans (1st Submission)	50	24-Oct-22	06-Jan-23	155
DGN-2080	Design QA/QC Rip Rap Rd. (1st Submission)	10	06-Jan-23	20-Jan-23	155
DGN-2170	Submit Rip Rap Rd. Bridge Plans (1st Submission)	0	20-Jan-23		155
DGN-2230	VDOT/FHWA Review/Comment Rip Rap Rd. Bridge Plans (1st Submissi	21	21-Jan-23	10-Feb-23	222
Final Submission		123	10-Feb-23	15-Aug-23	66
DGN-2320	Prepare Final Rip Rap Rd. Bridge Plans	20	10-Feb-23	13-Mar-23	154
DGN-2390	Design QA/QC (Final Submission)	5	13-Mar-23	20-Mar-23	154
DGN-2500	Submit Final Rip Rap Rd. Bridge Plans	0	18-Jul-23		70
DGN-2560	VDOT/FHWA Review/Comment Rip Rap Rd.Bridge Plans (Final Submiss	21	19-Jul-23	08-Aug-23	99
DGN-2620	Final Comment Resolution Rip Rap Rd. Bridge Plans	5	08-Aug-23	15-Aug-23	70
DGN-2690	RFC- Rip Rap Rd. Bridge Plans Issued for Construction	0	15-Aug-23		70
King Street Bridge		246	01-Aug-22	15-Aug-23	16
Stage I- Preliminary Submissions		88	01-Aug-22	12-Dec-22	44
DGN-1420	Prepare Stage I King St. Bridge Reports/TS&Ls	45	01-Aug-22	03-Oct-22	37
DGN-1590	Submit Stage I Prelim. King St. Bridge Design	0	04-Oct-22		37
DGN-1600	VDOT/FHWA Review/Comment Bridge Prelim. King St. Design	21	04-Oct-22	24-Oct-22	52
DGN-1720	Comment Response Stage I King St. Bridge Report	20	24-Oct-22	21-Nov-22	52
DGN-1830	Submit Stage I- Prelim. King St. Bridge Design (2nd submission)	0	21-Nov-22		52
DGN-1890	VDOT/FHWA Review Stage I King St. Bridge Design (2nd submission)	21	22-Nov-22	12-Dec-22	78
DGN-1960	Stage I RPT King St. Bridge Approved	0		12-Dec-22	53
First Submission		64	24-Oct-22	10-Feb-23	32
DGN-1730	Prepare King St. Bridge Plans (1st Submission)	50	24-Oct-22	06-Jan-23	36
DGN-2090	Design King St. QA/QC (1st Submission)	10	06-Jan-23	20-Jan-23	36
DGN-2180	Submit King St. Bridge Plans (1st Submission)	0	20-Jan-23		36
DGN-2240	VDOT/FHWA Review/Comment King St. Bridge Plans (1st Submission)	21	21-Jan-23	10-Feb-23	53
Final Submission		123	10-Feb-23	15-Aug-23	16
DGN-2330	Prepare King St. Final Bridge Plans	20	10-Feb-23	13-Mar-23	100
DGN-2400	Design King St. QA/QC (Final Submission)	5	13-Mar-23	20-Mar-23	100
DGN-2510	Submit Final King St. Bridge Plans	0	18-Jul-23		16
DGN-2570	VDOT/FHWA Review/Comment King St. Bridge Plans (Final Submission)	21	19-Jul-23	08-Aug-23	22
DGN-2630	Final Comment Resolution King St. Bridge Plans	5	08-Aug-23	15-Aug-23	16
DGN-2700	RFC Bridge King St. Plans Issued for Construction	0	15-Aug-23		16
Settlers Landing Road Bridge		246	01-Aug-22	15-Aug-23	88
Stage I- Preliminary Submissions		88	01-Aug-22	12-Dec-22	182
DGN-1430	Prepare Stage I Settlers Landing Bridge Reports/TS&Ls	45	01-Aug-22	03-Oct-22	123
DGN-1610	Submit Stage I Prelim. Settlers Landing Bridge Design	0	04-Oct-22		179
DGN-1620	VDOT/FHWA Review/Comment Settlers Landing Bridge Prelim. Design	21	04-Oct-22	24-Oct-22	259
DGN-1740	Comment Response Stage I Settlers Landing Bridge Report	20	24-Oct-22	21-Nov-22	194
DGN-1840	Submit Stage I- Prelim. Settlers Landing Bridge Design (2nd submission)	0	21-Nov-22		194
DGN-1900	VDOT/FHWA Review Stage I Settlers Landing Bridge Design (2nd submis	21	22-Nov-22	12-Dec-22	281
DGN-1970	Stage I RPT Settlers Landing Rd. Bridge Approved	0		12-Dec-22	195
First Submission		64	24-Oct-22	10-Feb-23	171
DGN-1750	Prepare Settlers Landing Bridge Plans (1st Submission)	50	24-Oct-22	06-Jan-23	178
DGN-2100	Design Settlers Landing QA/QC (1st Submission)	10	06-Jan-23	20-Jan-23	178
DGN-2190	Submit Settlers Landing Bridge Plans (1st Submission)	0	20-Jan-23		178
DGN-2250	VDOT/FHWA Review/Comment Settlers Landing Bridge Plans (1st Submi	21	21-Jan-23	10-Feb-23	256
Final Submission		123	10-Feb-23	15-Aug-23	88
DGN-2340	Prepare Final Settlers Landing Bridge Plans	20	10-Feb-23	13-Mar-23	178
DGN-2410	Design Settlers Landing QA/QC (Final Submission)	5	13-Mar-23	20-Mar-23	178
DGN-2520	Submit Settlers Landing Final Bridge Plans	0	18-Jul-23		94
DGN-2580	VDOT/FHWA Review/Comment Settlers Landing Bridge Plans (Final Sub	21	19-Jul-23	08-Aug-23	135
DGN-2640	Final Comment Resolution Settlers Landing Bridge Plans	5	08-Aug-23	15-Aug-23	94
DGN-2710	RFC Settlers Landing Bridge Plans Issued for Construction	0	15-Aug-23		94
PUBLIC INVOLVEMENT / PUBLIC RELATIONS		1017	01-Aug-22	13-Nov-26	26
PIN-1000	Submit Emergency contact list	10	01-Aug-22	10-Aug-22	1237
PIN-1010	Submit Public Information and Comunication Plan (PICP)	90	01-Aug-22	29-Oct-22	1157
PIN-1020	Meet with District Public Affairs to discuss public involvement	15	31-Oct-22	18-Nov-22	799
PIN-1030	VDOT Review and approve PICP	21	19-Nov-22	09-Dec-22	1300
PIN-1040	Public Involvement - ONGOING COORDINATION	995	09-Dec-22	13-Nov-26	30
PIN-1050	Final PICP Approved	0	09-Dec-22		900



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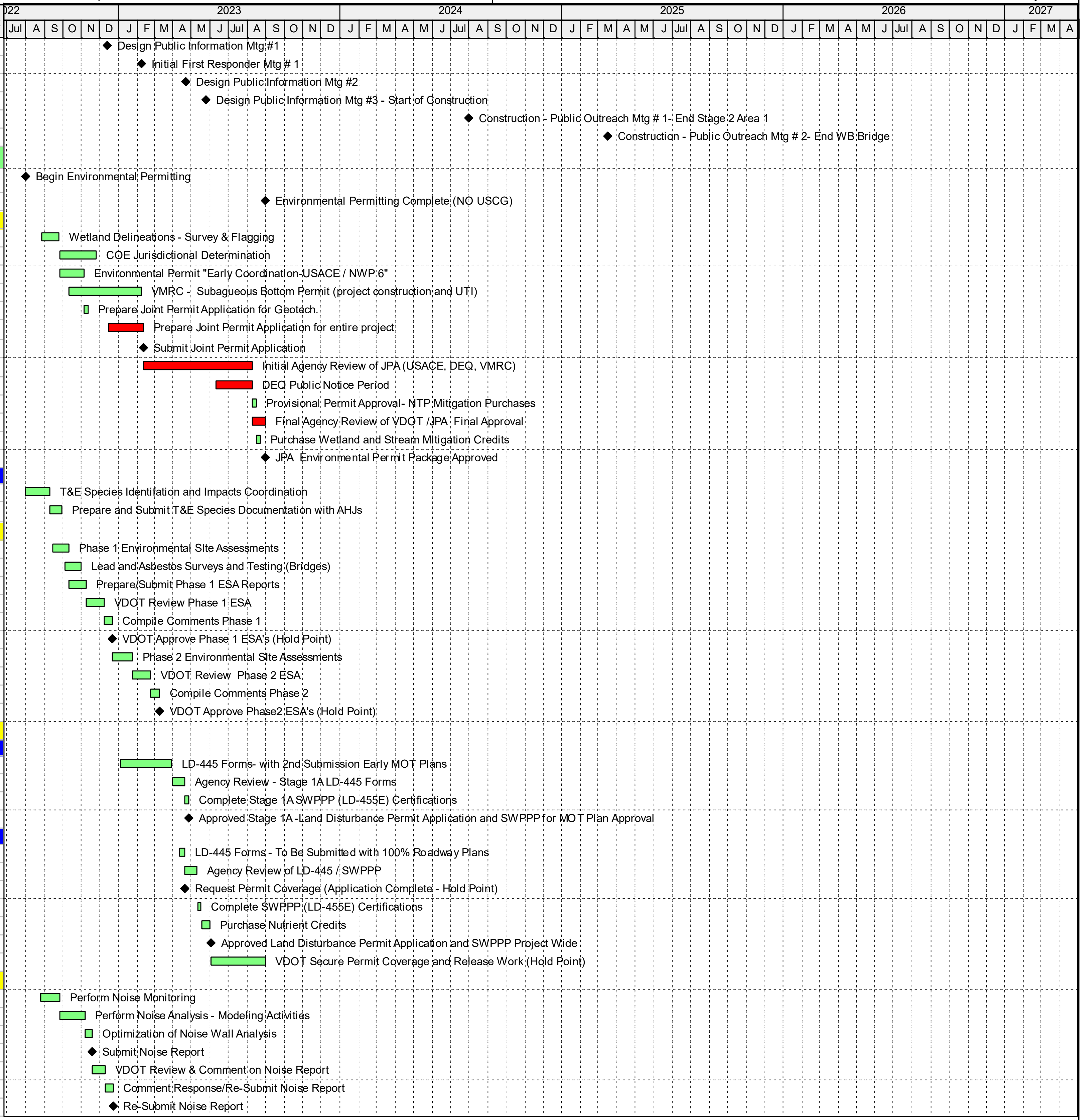
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
PIN-1060	Design Public Information Mtg #1	0	13-Dec-22		898
PIN-1070	Initial First Responder Mtg # 1	0	08-Feb-23		949
PIN-1080	Design Public Information Mtg #2	0	21-Apr-23		898
PIN-1090	Design Public Information Mtg #3 - Start of Construction	0	25-May-23		874
PIN-1100	Construction - Public Outreach Mtg # 1- End Stage 2 Area 1	0	31-Jul-24		575
PIN-1110	Construction - Public Outreach Mtg # 2- End WB Bridge	0	17-Mar-25		419
ENVIRONMENTAL PERMITTING		372	01-Aug-22	05-Mar-24	0
ENV-1010	Begin Environmental Permitting	0	01-Aug-22		61
ENV-1500	Environmental Permitting Complete (NO USCG)	0	30-Aug-23		5
Wetlands and Waters Permitting		257	01-Aug-22	30-Aug-23	0
ENV-1030	Wetland Delineations - Survey & Flagging	30	27-Aug-22	25-Sep-22	30
ENV-1060	COE Jurisdictional Determination	60	26-Sep-22	24-Nov-22	30
ENV-1070	Environmental Permit "Early Coordination-USACE / NWP 6"	40	26-Sep-22	04-Nov-22	30
ENV-1110	VMRC - Subagueous Bottom Permit (project construction and UTI)	120	11-Oct-22	07-Feb-23	3
ENV-1130	Prepare Joint Permit Application for Geotech.	7	05-Nov-22	11-Nov-22	30
ENV-1200	Prepare Joint Permit Application for entire project	40	14-Dec-22	10-Feb-23	0
ENV-1290	Submit Joint Permit Application	0	10-Feb-23		0
ENV-1300	Initial Agency Review of JPA (USACE, DEQ, VMRC)	180	11-Feb-23	09-Aug-23	0
ENV-1450	DEQ Public Notice Period	60	11-Jun-23	09-Aug-23	0
ENV-1470	Provisional Permit Approval- NTP Mitigation Purchases	5	09-Aug-23	16-Aug-23	5
ENV-1480	Final Agency Review of VDOT /JPA Final Approval	21	10-Aug-23	30-Aug-23	0
ENV-1490	Purchase Wetland and Stream Mitigation Credits	5	16-Aug-23	23-Aug-23	5
ENV-1510	JPA Environmental Permit Package Approved	0		30-Aug-23	0
Threatened and Endangered Species		60	01-Aug-22	29-Sep-22	76
ENV-1000	T&E Species Identifation and Impacts Coordination	40	01-Aug-22	09-Sep-22	76
ENV-1040	Prepare and Submit T&E Species Documentation with AHJs	20	10-Sep-22	29-Sep-22	76
Hazmat and Enviromental Site Assessements		108	14-Sep-22	10-Mar-23	113
ENV-1050	Phase 1 Environmental SIte Assessments	20	14-Sep-22	11-Oct-22	105
ENV-1100	Lead and Asbestos Surveys and Testing (Bridges)	20	04-Oct-22	31-Oct-22	108
ENV-1120	Prepare/Submit Phase 1 ESA Reports	20	12-Oct-22	08-Nov-22	105
ENV-1150	VDOT Review Phase 1 ESA	30	09-Nov-22	08-Dec-22	154
ENV-1180	Compile Comments Phase 1	10	08-Dec-22	22-Dec-22	107
ENV-1210	VDOT Approve Phase 1 ESA's (Hold Point)	0		22-Dec-22	107
ENV-1220	Phase 2 Environmental SIte Assessments	20	22-Dec-22	23-Jan-23	116
ENV-1280	VDOT Review Phase 2 ESA	30	24-Jan-23	22-Feb-23	167
ENV-1320	Compile Comments Phase 2	10	23-Feb-23	10-Mar-23	113
ENV-1330	VDOT Approve Phase2 ESA's (Hold Point)	0		10-Mar-23	115
LD 445 / Stormwater Permit		156	04-Jan-23	30-Aug-23	5
Stage 1A - Land Disturbance Permit		71	04-Jan-23	27-Apr-23	0
ENV-1250	LD-445 Forms- with 2nd Submission Early MOT Plans	60	04-Jan-23	30-Mar-23	0
ENV-1350	Agency Review - Stage 1A LD-445 Forms	21	31-Mar-23	20-Apr-23	0
ENV-1390	Complete Stage 1A SWPPP (LD-455E) Certifications	5	20-Apr-23	27-Apr-23	0
ENV-1400	Approved Stage 1A -Land Disturbance Permit Application and SWPPP for I	0		27-Apr-23	0
Project Wide Land Disturbance Permit		96	12-Apr-23	30-Aug-23	5
ENV-1360	LD-445 Forms - To Be Submitted with 100% Roadway Plans	5	12-Apr-23	19-Apr-23	6
ENV-1370	Agency Review of LD-445 / SWPPP	21	20-Apr-23	10-May-23	8
ENV-1380	Request Permit Coverage (Application Complete - Hold Point)	0	20-Apr-23		8
ENV-1410	Complete SWPPP (LD-455E) Certifications	5	11-May-23	17-May-23	6
ENV-1420	Purchase Nutrient Credits	10	18-May-23	01-Jun-23	6
ENV-1430	Approved Land Disturbance Permit Application and SWPPP Project Wide	0	02-Jun-23		8
ENV-1440	VDOT Secure Permit Coverage and Release Work (Hold Point)	90	02-Jun-23	30-Aug-23	8
Noise Analysis		129	26-Aug-22	27-Mar-23	36
ENV-1020	Perform Noise Monitoring	20	26-Aug-22	26-Sep-22	3
ENV-1090	Perform Noise Analysis - Modeling Activities	30	26-Sep-22	07-Nov-22	26
ENV-1140	Optimization of Noise Wall Analysis	9	07-Nov-22	18-Nov-22	26
ENV-1160	Submit Noise Report	0	18-Nov-22		26
ENV-1170	VDOT Review & Comment on Noise Report	21	19-Nov-22	09-Dec-22	41
ENV-1190	Comment Response/Re-Submit Noise Report	10	09-Dec-22	23-Dec-22	27
ENV-1230	Re-Submit Noise Report	0	23-Dec-22		27



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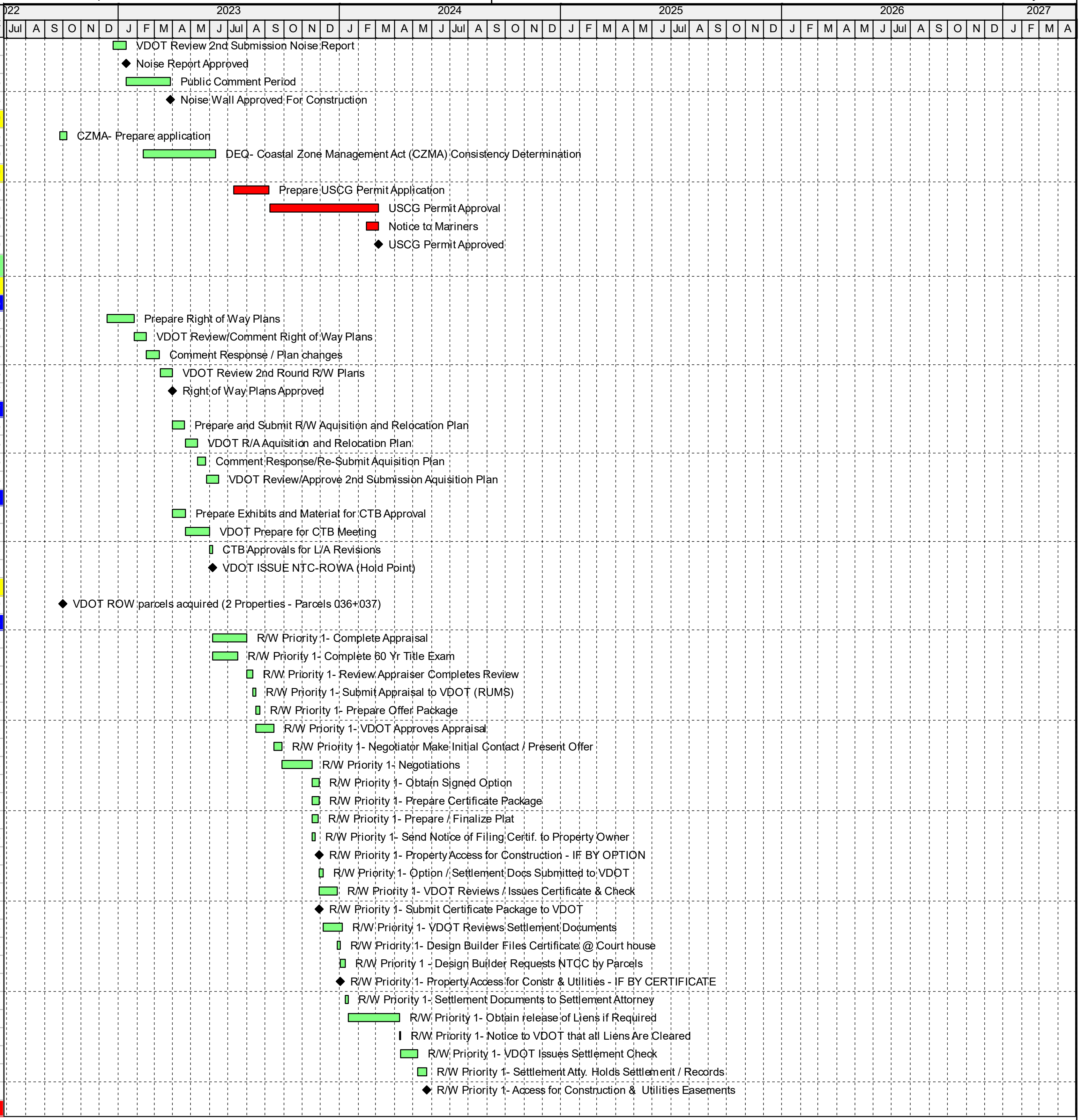
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
ENV-1240	VDOT Review 2nd Submission Noise Report	21	24-Dec-22	13-Jan-23	41
ENV-1260	Noise Report Approved	0		13-Jan-23	41
ENV-1270	Public Comment Period	50	13-Jan-23	27-Mar-23	38
ENV-1340	Noise Wall Approved For Construction	0		27-Mar-23	38
Individual Permits		162	26-Sep-22	10-Jun-23	19
ENV-1080	CZMA- Prepare application	10	26-Sep-22	07-Oct-22	46
ENV-1310	DEQ- Coastal Zone Management Act (CZMA) Consistency Determination	120	11-Feb-23	10-Jun-23	29
U.S. Coast Guard Bridge Permit		240	10-Jul-23	05-Mar-24	0
ENV-1460	Prepare USCG Permit Application	60	10-Jul-23	07-Sep-23	0
ENV-1520	USCG Permit Approval	180	08-Sep-23	05-Mar-24	0
ENV-1530	Notice to Mariners	21	14-Feb-24	05-Mar-24	0
ENV-1540	USCG Permit Approved	0		05-Mar-24	0
RIGHT OF WAY / EASEMENT ACQUISITIONS		419	01-Oct-22	17-Jul-24	551
Right of Ways Plans		115	13-Dec-22	15-Jun-23	102
ROW Plans		64	13-Dec-22	31-Mar-23	45
ROW-1010	Prepare Right of Way Plans	30	13-Dec-22	26-Jan-23	48
ROW-1030	VDOT Review/Comment Right of Way Plans	21	27-Jan-23	16-Feb-23	69
ROW-1040	Comment Response / Plan changes	15	16-Feb-23	10-Mar-23	48
ROW-1050	VDOT Review 2nd Round R/W Plans	21	11-Mar-23	31-Mar-23	68
ROW-1120	Right of Way Plans Approved	0		31-Mar-23	47
Project Specific Acquisition and Relocation Plan		51	01-Apr-23	15-Jun-23	47
ROW-1130	Prepare and Submit R/W Aquisition and Relocation Plan	20	01-Apr-23	20-Apr-23	68
ROW-1140	VDOT R/A Aquisition and Relocation Plan	21	21-Apr-23	11-May-23	68
ROW-1150	Comment Response/Re-Submit Aquisition Plan	10	11-May-23	25-May-23	46
ROW-1160	VDOT Review/Approve 2nd Submission Aquisition Plan	21	26-May-23	15-Jun-23	68
Virginia CTB Approval for Limited Access Revisions		45	31-Mar-23	05-Jun-23	113
ROW-1060	Prepare Exhibits and Material for CTB Approval	15	31-Mar-23	21-Apr-23	113
ROW-1070	VDOT Prepare for CTB Meeting	28	21-Apr-23	01-Jun-23	113
ROW-1080	CTB Approvals for L/A Revisions	2	01-Jun-23	05-Jun-23	113
ROW-1110	VDOT ISSUE NTC-ROWA (Hold Point)	0		05-Jun-23	113
ROW Acquisitions		419	01-Oct-22	17-Jul-24	551
ROW-1000	VDOT ROW parcels acquired (2 Properties - Parcels 036+037)	0	01-Oct-22*		629
Priority 1 ROW Acquisition		324	03-Jan-23	23-May-24	588
ROW-1090	R/W Priority 1- Complete Appraisal	40	05-Jun-23	01-Aug-23	113
ROW-1100	R/W Priority 1- Complete 60 Yr Title Exam	29	05-Jun-23	17-Jul-23	114
ROW-1170	R/W Priority 1- Review Appraiser Completes Review	8	01-Aug-23	11-Aug-23	113
ROW-1200	R/W Priority 1- Submit Appraisal to VDOT (RUMS)	2	11-Aug-23	15-Aug-23	113
ROW-1210	R/W Priority 1- Prepare Offer Package	5	15-Aug-23	22-Aug-23	129
ROW-1220	R/W Priority 1- VDOT Approves Appraisal	21	15-Aug-23	14-Sep-23	113
ROW-1230	R/W Priority 1- Negotiator Make Initial Contact / Present Offer	10	14-Sep-23	28-Sep-23	113
ROW-1250	R/W Priority 1- Negotiations	36	28-Sep-23	17-Nov-23	113
ROW-1300	R/W Priority 1- Obtain Signed Option	5	17-Nov-23	28-Nov-23	136
ROW-1310	R/W Priority 1- Prepare Certificate Package	5	17-Nov-23	28-Nov-23	113
ROW-1320	R/W Priority 1- Prepare / Finalize Plat	4	17-Nov-23	27-Nov-23	632
ROW-1330	R/W Priority 1- Send Notice of Filing Certif. to Property Owner	3	17-Nov-23	22-Nov-23	115
ROW-1350	R/W Priority 1- Property Access for Construction - IF BY OPTION	0		28-Nov-23	136
ROW-1360	R/W Priority 1- Option / Settlement Docs Submitted to VDOT	5	28-Nov-23	05-Dec-23	626
ROW-1370	R/W Priority 1- VDOT Reviews / Issues Certificate & Check	21	28-Nov-23	28-Dec-23	113
ROW-1380	R/W Priority 1- Submit Certificate Package to VDOT	0	28-Nov-23		113
ROW-1390	R/W Priority 1- VDOT Reviews Settlement Documents	21	05-Dec-23	05-Jan-24	626
ROW-1400	R/W Priority 1- Design Builder Files Certificate @ Court house	2	28-Dec-23	02-Jan-24	113
ROW-1410	R/W Priority 1 - Design Builder Requests NTCC by Parcels	5	02-Jan-24	11-Jan-24	582
ROW-1420	R/W Priority 1- Property Access for Constr & Utilities - IF BY CERTIFICATE	0		02-Jan-24	113
ROW-1430	R/W Priority 1- Settlement Documents to Settlement Attorney	2	11-Jan-24	15-Jan-24	622
ROW-1440	R/W Priority 1- Obtain release of Liens if Required	60	15-Jan-24	09-Apr-24	622
ROW-1590	R/W Priority 1- Notice to VDOT that all Liens Are Cleared	1	09-Apr-24	10-Apr-24	622
ROW-1600	R/W Priority 1- VDOT Issues Settlement Check	21	10-Apr-24	09-May-24	622
ROW-1610	R/W Priority 1- Settlement Atty. Holds Settlement / Records	10	09-May-24	23-May-24	622
ROW-1620	R/W Priority 1- Access for Construction & Utilities Easements	0		23-May-24	622
Early Priority ROW Acquisition- City of Hampton		90	03-Jan-23	10-May-23	11



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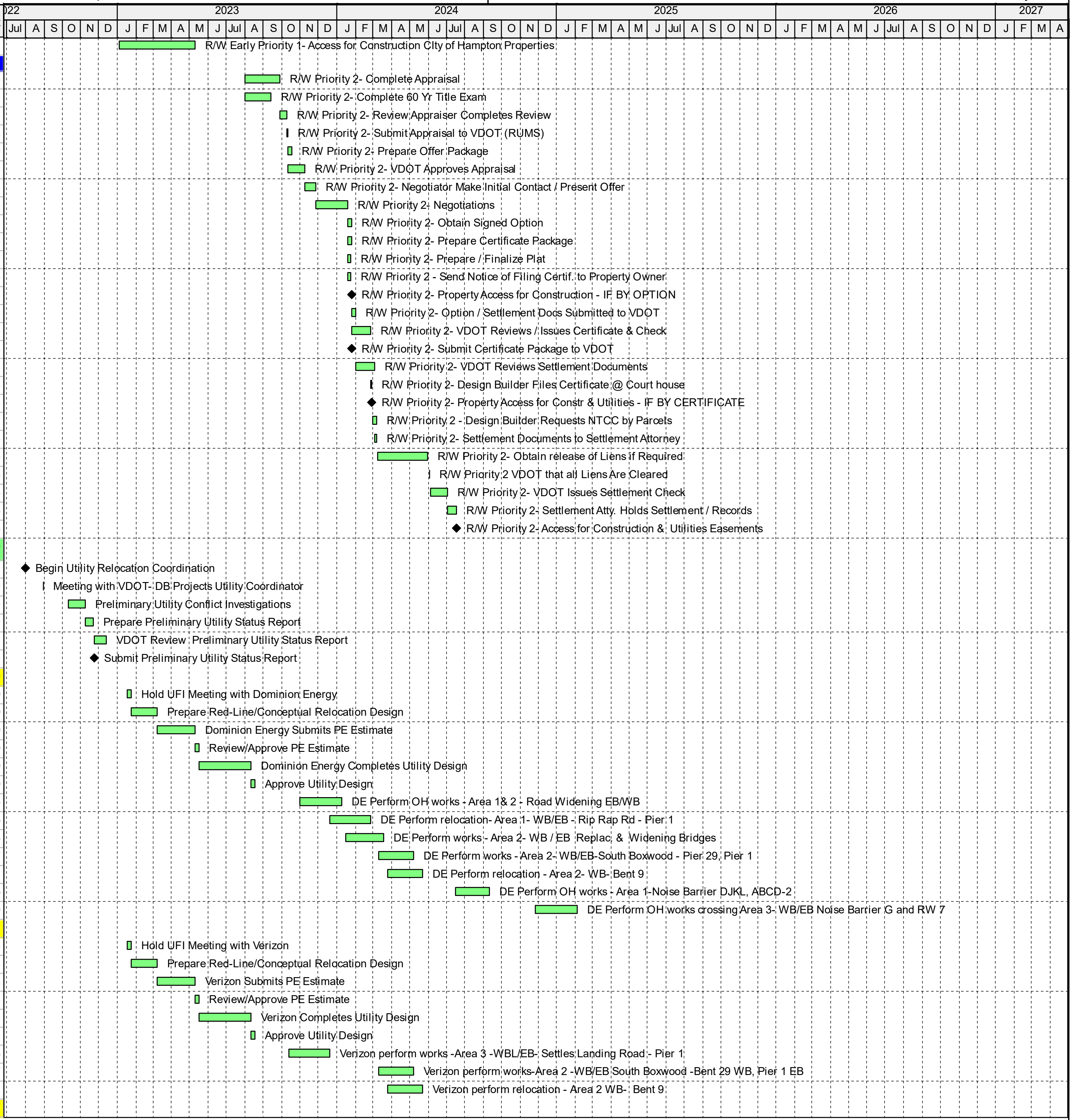
ROW-1020	R/W Early Priority 1- Access for Construction CIty of Hampton Properties	90	03-Jan-23	10-May-23	11
Priority 2 ROW Acquisition		226	01-Aug-23	17-Jul-24	551
ROW-1180	R/W Priority 2- Complete Appraisal	40	01-Aug-23	27-Sep-23	113
ROW-1190	R/W Priority 2- Complete 60 Yr Title Exam	29	01-Aug-23	12-Sep-23	124
ROW-1240	R/W Priority 2- Review Appraiser Completes Review	8	27-Sep-23	09-Oct-23	113
ROW-1260	R/W Priority 2- Submit Appraisal to VDOT (RUMS)	2	09-Oct-23	11-Oct-23	113
ROW-1270	R/W Priority 2- Prepare Offer Package	5	11-Oct-23	18-Oct-23	129
ROW-1280	R/W Priority 2- VDOT Approves Appraisal	21	11-Oct-23	09-Nov-23	113
ROW-1290	R/W Priority 2- Negotiator Make Initial Contact / Present Offer	10	09-Nov-23	27-Nov-23	113
ROW-1340	R/W Priority 2- Negotiations	36	27-Nov-23	18-Jan-24	113
ROW-1450	R/W Priority 2- Obtain Signed Option	5	18-Jan-24	25-Jan-24	136
ROW-1460	R/W Priority 2- Prepare Certificate Package	5	18-Jan-24	25-Jan-24	113
ROW-1470	R/W Priority 2- Prepare / Finalize Plat	4	18-Jan-24	24-Jan-24	592
ROW-1480	R/W Priority 2 - Send Notice of Filing Certif. to Property Owner	3	18-Jan-24	23-Jan-24	115
ROW-1490	R/W Priority 2- Property Access for Construction - IF BY OPTION	0		25-Jan-24	136
ROW-1500	R/W Priority 2- Option / Settlement Docs Submitted to VDOT	5	25-Jan-24	01-Feb-24	586
ROW-1510	R/W Priority 2- VDOT Reviews / Issues Certificate & Check	21	25-Jan-24	26-Feb-24	113
ROW-1520	R/W Priority 2- Submit Certificate Package to VDOT	0	25-Jan-24		113
ROW-1530	R/W Priority 2- VDOT Reviews Settlement Documents	21	01-Feb-24	04-Mar-24	586
ROW-1540	R/W Priority 2- Design Builder Files Certificate @ Court house	2	26-Feb-24	28-Feb-24	113
ROW-1550	R/W Priority 2- Property Access for Constr & Utilities - IF BY CERTIFICATE	0		28-Feb-24	113
ROW-1560	R/W Priority 2 - Design Builder Requests NTCC by Parcels	5	29-Feb-24	07-Mar-24	551
ROW-1570	R/W Priority 2- Settlement Documents to Settlement Attorney	2	04-Mar-24	06-Mar-24	586
ROW-1580	R/W Priority 2- Obtain release of Liens if Required	60	08-Mar-24	31-May-24	585
ROW-1630	R/W Priority 2 VDOT that all Liens Are Cleared	1	03-Jun-24	03-Jun-24	585
ROW-1640	R/W Priority 2- VDOT Issues Settlement Check	21	04-Jun-24	02-Jul-24	585
ROW-1650	R/W Priority 2- Settlement Atty. Holds Settlement / Records	10	03-Jul-24	17-Jul-24	585
ROW-1660	R/W Priority 2- Access for Construction & Utilities Easements	0		17-Jul-24	585
UTILITY RELOCATIONS		592	01-Aug-22	03-Feb-25	0
UTI-1000	Begin Utility Relocation Coordination	0	01-Aug-22		160
UTI-1010	Meeting with VDOT- DB Projects Utility Coordinator	1	30-Aug-22	30-Aug-22	139
UTI-1020	Preliminary Utility Conflict Investigations	20	12-Oct-22	08-Nov-22	110
UTI-1030	Prepare Preliminary Utility Status Report	10	09-Nov-22	22-Nov-22	110
UTI-1050	VDOT Review Preliminary Utility Status Report	21	23-Nov-22	13-Dec-22	161
UTI-1040	Submit Preliminary Utility Status Report	0	23-Nov-22		110
Dominion Energy		483	17-Jan-23	03-Feb-25	0
UTI-1060	Hold UFI Meeting with Dominion Energy	5	17-Jan-23	24-Jan-23	89
UTI-1130	Prepare Red-Line/Conceptual Relocation Design	30	24-Jan-23	08-Mar-23	89
UTI-1180	Dominion Energy Submits PE Estimate	45	08-Mar-23	10-May-23	89
UTI-1240	Review/Approve PE Estimate	5	10-May-23	17-May-23	89
UTI-1280	Dominion Energy Completes Utility Design	60	17-May-23	11-Aug-23	89
UTI-1330	Approve Utility Design	5	11-Aug-23	18-Aug-23	89
UTI-1390	DE Perform OH works - Area 1& 2 - Road Widening EB/WB	40	31-Oct-23	09-Jan-24	46
UTI-1420	DE Perform relocation- Area 1- WB/EB - Rip Rap Rd - Pier 1	40	19-Dec-23	26-Feb-24	5
UTI-1440	DE Perform works - Area 2- WB / EB Replac. & Widening Bridges	40	15-Jan-24	19-Mar-24	86
UTI-1470	DE Perform works - Area 2- WB/EB-South Boxwood - Pier 29, Pier 1	40	11-Mar-24	07-May-24	37
UTI-1490	DE Perform relocation - Area 2- WB- Bent 9	40	25-Mar-24	22-May-24	91
UTI-1510	DE Perform OH works - Area 1-Noise Barrier DJKL, ABCD-2	40	16-Jul-24	11-Sep-24	5
UTI-1520	DE Perform OH works crossing Area 3- WB/EB Noise Barrier G and RW 7	40	26-Nov-24	03-Feb-25	0
Verizon Virginia		315	17-Jan-23	22-May-24	91
UTI-1080	Hold UFI Meeting with Verizon	5	17-Jan-23	24-Jan-23	138
UTI-1150	Prepare Red-Line/Conceptual Relocation Design	30	24-Jan-23	08-Mar-23	138
UTI-1190	Verizon Submits PE Estimate	45	08-Mar-23	10-May-23	138
UTI-1250	Review/Approve PE Estimate	5	10-May-23	17-May-23	138
UTI-1290	Verizon Completes Utility Design	60	17-May-23	11-Aug-23	138
UTI-1340	Approve Utility Design	5	11-Aug-23	18-Aug-23	138
UTI-1380	Verizon perform works -Area 3 -WBL/EB- Settles Landing Road - Pier 1	40	13-Oct-23	19-Dec-23	86
UTI-1450	Verizon perform works-Area 2 -WB/EB South Boxwood -Bent 29 WB, Pier	40	11-Mar-24	07-May-24	37
UTI-1500	Verizon perform relocation - Area 2 WB- Bent 9	40	25-Mar-24	22-May-24	91
COX Communication		305	17-Jan-23	07-May-24	37



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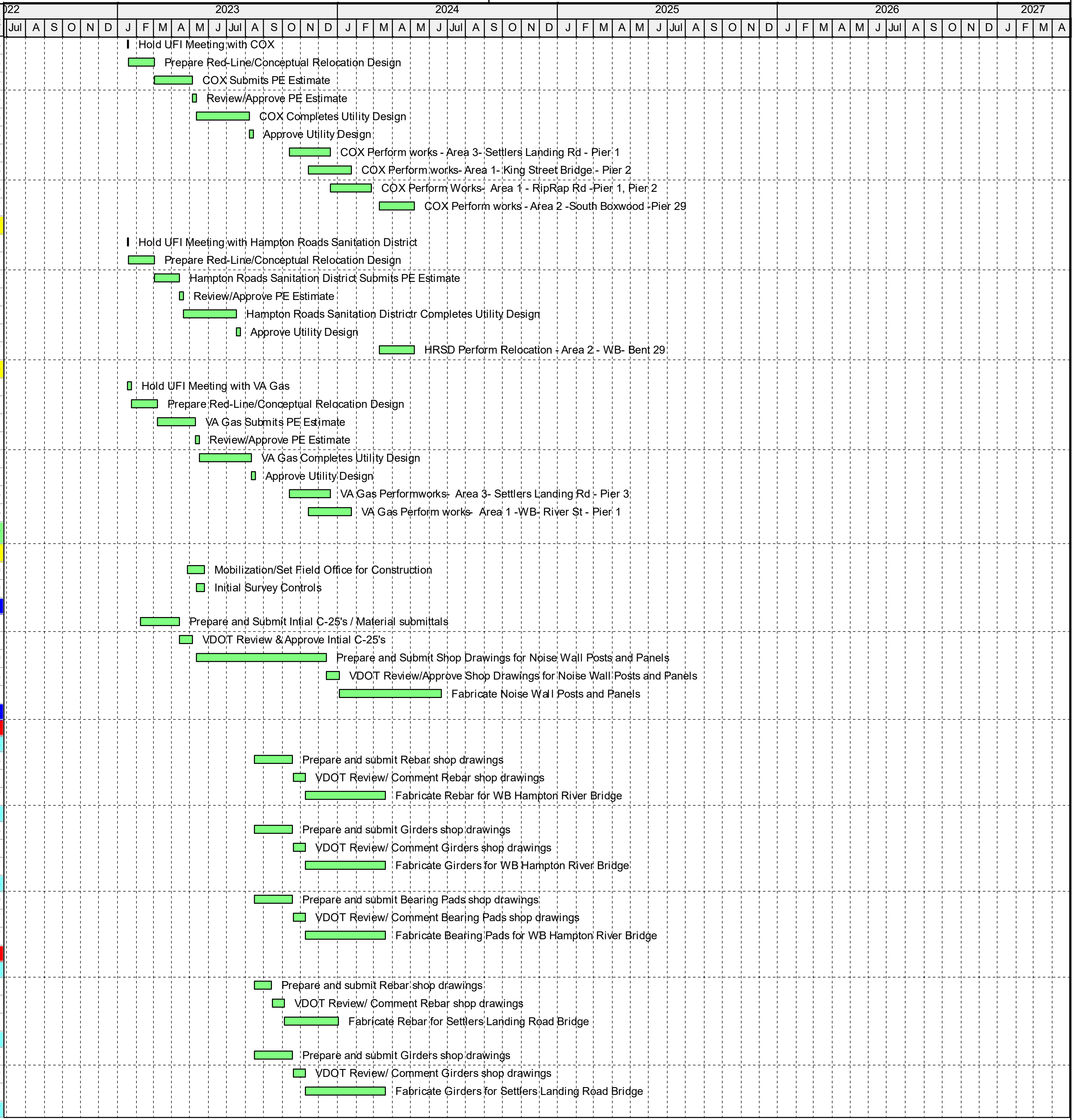
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
UTI-1070	Hold UFI Meeting with COX	1	17-Jan-23	18-Jan-23	93
UTI-1120	Prepare Red-Line/Conceptual Relocation Design	30	18-Jan-23	02-Mar-23	93
UTI-1160	COX Submits PE Estimate	45	02-Mar-23	04-May-23	93
UTI-1230	Review/Approve PE Estimate	5	04-May-23	11-May-23	93
UTI-1270	COX Completes Utility Design	60	11-May-23	07-Aug-23	93
UTI-1320	Approve Utility Design	5	07-Aug-23	14-Aug-23	93
UTI-1360	COX Perform works - Area 3- Settlers Landing Rd - Pier 1	40	13-Oct-23	19-Dec-23	86
UTI-1400	COX Perform works- Area 1- King Street Bridge - Pier 2	40	14-Nov-23	23-Jan-24	45
UTI-1430	COX Perform Works- Area 1 - RipRap Rd -Pier 1, Pier 2	40	19-Dec-23	26-Feb-24	5
UTI-1480	COX Perform works - Area 2 -South Boxwood -Pier 29	40	11-Mar-24	07-May-24	37
Hampton Roads Sanitation District		305	17-Jan-23	07-May-24	37
UTI-1100	Hold UFI Meeting with Hampton Roads Sanitation District	1	17-Jan-23	18-Jan-23	197
UTI-1110	Prepare Red-Line/Conceptual Relocation Design	30	18-Jan-23	02-Mar-23	197
UTI-1170	Hampton Roads Sanitation District Submits PE Estimate	30	02-Mar-23	13-Apr-23	197
UTI-1210	Review/Approve PE Estimate	5	13-Apr-23	20-Apr-23	197
UTI-1220	Hampton Roads Sanitation Districtr Completes Utility Design	60	20-Apr-23	17-Jul-23	197
UTI-1310	Approve Utility Design	5	17-Jul-23	24-Jul-23	197
UTI-1460	HRSD Perform Relocation - Area 2 - WB- Bent 29	40	11-Mar-24	07-May-24	37
Virginia Natural Gas		238	17-Jan-23	23-Jan-24	66
UTI-1090	Hold UFI Meeting with VA Gas	5	17-Jan-23	24-Jan-23	112
UTI-1140	Prepare Red-Line/Conceptual Relocation Design	30	24-Jan-23	08-Mar-23	112
UTI-1200	VA Gas Submits PE Estimate	45	08-Mar-23	10-May-23	112
UTI-1260	Review/Approve PE Estimate	5	10-May-23	17-May-23	112
UTI-1300	VA Gas Completes Utility Design	60	17-May-23	11-Aug-23	112
UTI-1350	Approve Utility Design	5	11-Aug-23	18-Aug-23	112
UTI-1370	VA Gas Performworks- Area 3- Settlers Landing Rd - Pier 3	40	13-Oct-23	19-Dec-23	86
UTI-1410	VA Gas Perform works- Area 1 -WB- River St - Pier 1	40	14-Nov-23	23-Jan-24	45
CONSTRUCTION		949	08-Nov-22	13-Nov-26	26
Pre-construction, Submittals and Material Procurement		564	08-Feb-23	25-Jun-25	298
GA00000-1000	Mobilization/Set Field Office for Construction	20	27-Apr-23	25-May-23	0
GA00000-1010	Initial Survey Controls	10	11-May-23	25-May-23	0
Submittals Roadway		324	08-Feb-23	21-Jun-24	61
PRC-1000	Prepare and Submit Intial C-25's / Material submittals	45	08-Feb-23	13-Apr-23	21
PRC-1010	VDOT Review & Approve Intial C-25's	21	14-Apr-23	04-May-23	31
PRC-1020	Prepare and Submit Shop Drawings for Noise Wall Posts and Panels	150	11-May-23	13-Dec-23	59
PRC-1030	VDOT Review/Approve Shop Drawings for Noise Wall Posts and Panels	21	14-Dec-23	03-Jan-24	88
PRC-1040	Fabricate Noise Wall Posts and Panels	120	04-Jan-24	21-Jun-24	61
Submittals Bridges		299	10-Feb-23	20-May-24	259
WB Hampton River Bridges		136	15-Aug-23	20-Mar-24	44
Rebar		136	15-Aug-23	20-Mar-24	44
PRC-1050	Prepare and submit Rebar shop drawings	45	15-Aug-23	18-Oct-23	48
PRC-1080	VDOT Review/ Comment Rebar shop drawings	21	19-Oct-23	08-Nov-23	71
PRC-1110	Fabricate Rebar for WB Hampton River Bridge	90	09-Nov-23	20-Mar-24	47
Girders		136	15-Aug-23	20-Mar-24	44
PRC-1060	Prepare and submit Girders shop drawings	45	15-Aug-23	18-Oct-23	48
PRC-1090	VDOT Review/ Comment Girders shop drawings	21	19-Oct-23	08-Nov-23	71
PRC-1120	Fabricate Girders for WB Hampton River Bridge	90	09-Nov-23	20-Mar-24	47
Bearing Pads		136	15-Aug-23	20-Mar-24	16
PRC-1070	Prepare and submit Bearing Pads shop drawings	45	15-Aug-23	18-Oct-23	19
PRC-1100	VDOT Review/ Comment Bearing Pads shop drawings	21	19-Oct-23	08-Nov-23	27
PRC-1130	Fabricate Bearing Pads for WB Hampton River Bridge	90	09-Nov-23	20-Mar-24	17
Settlers Landing Road Bridge		156	18-Jul-23	20-Mar-24	91
Rebar		89	15-Aug-23	02-Jan-24	103
PRC-1160	Prepare and submit Rebar shop drawings	20	15-Aug-23	13-Sep-23	114
PRC-1190	VDOT Review/ Comment Rebar shop drawings	21	14-Sep-23	04-Oct-23	167
PRC-1200	Fabricate Rebar for Settlers Landing Road Bridge	60	05-Oct-23	02-Jan-24	114
Girders		136	15-Aug-23	20-Mar-24	91
PRC-1170	Prepare and submit Girders shop drawings	45	15-Aug-23	18-Oct-23	94
PRC-1210	VDOT Review/ Comment Girders shop drawings	21	19-Oct-23	08-Nov-23	139
PRC-1220	Fabricate Girders for Settlers Landing Road Bridge	90	09-Nov-23	20-Mar-24	94
Bearing Pads		40	18-Jul-23	13-Sep-23	87



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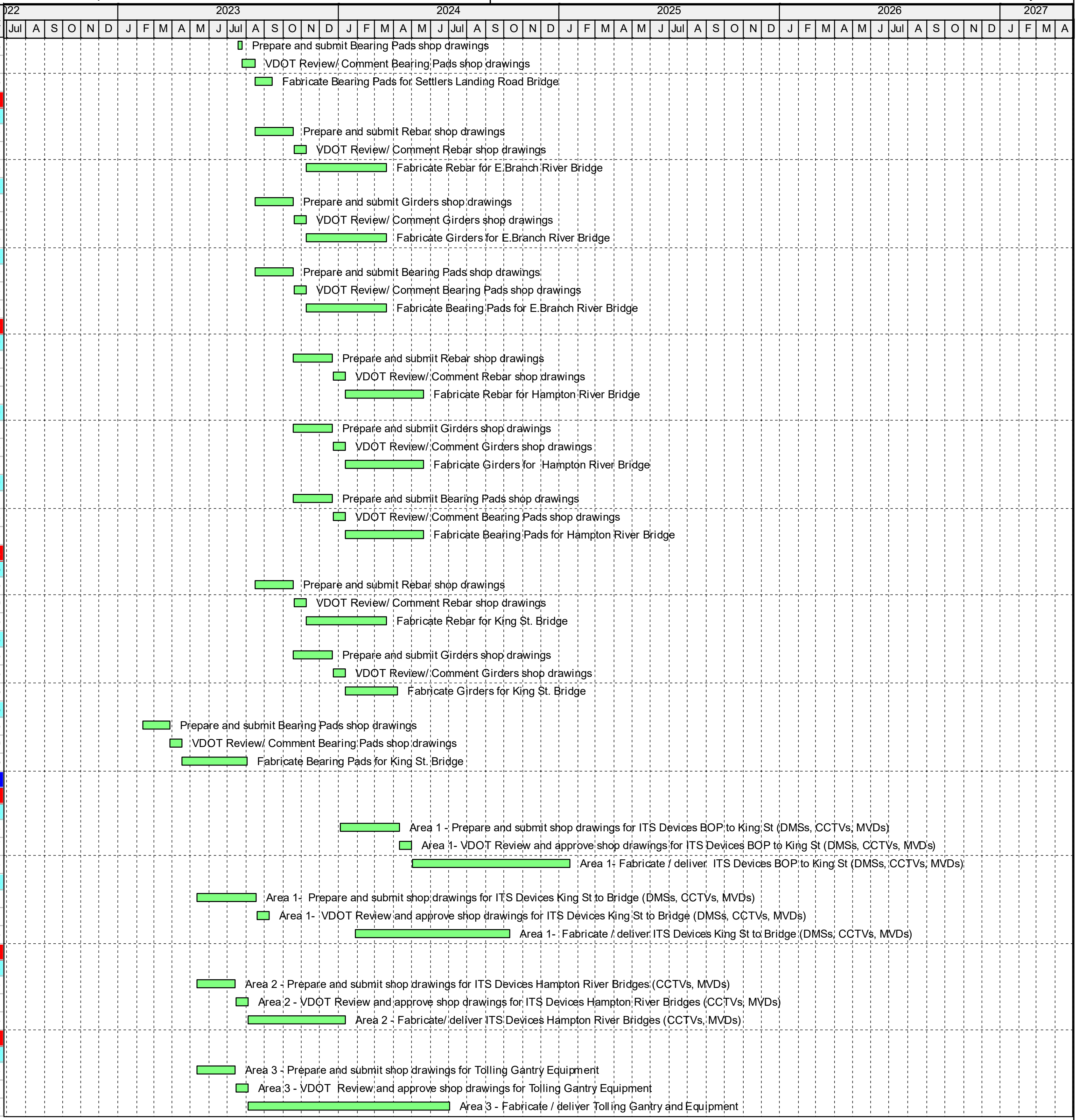
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
PRC-1140	Prepare and submit Bearing Pads shop drawings	5	18-Jul-23	25-Jul-23	98
PRC-1150	VDOT Review/ Comment Bearing Pads shop drawings	21	26-Jul-23	15-Aug-23	141
PRC-1180	Fabricate Bearing Pads for Settlers Landing Road Bridge	20	15-Aug-23	13-Sep-23	96
E. Branch Hampton River Bridge		136	15-Aug-23	20-Mar-24	204
Rebar		136	15-Aug-23	20-Mar-24	204
PRC-1350	Prepare and submit Rebar shop drawings	45	15-Aug-23	18-Oct-23	216
PRC-1460	VDOT Review/ Comment Rebar shop drawings	21	19-Oct-23	08-Nov-23	313
PRC-1500	Fabricate Rebar for E.Branch River Bridge	90	09-Nov-23	20-Mar-24	215
Girders		136	15-Aug-23	20-Mar-24	204
PRC-1360	Prepare and submit Girders shop drawings	45	15-Aug-23	18-Oct-23	216
PRC-1470	VDOT Review/ Comment Girders shop drawings	21	19-Oct-23	08-Nov-23	313
PRC-1510	Fabricate Girders for E.Branch River Bridge	90	09-Nov-23	20-Mar-24	215
Bearing Pads		136	15-Aug-23	20-Mar-24	204
PRC-1370	Prepare and submit Bearing Pads shop drawings	45	15-Aug-23	18-Oct-23	216
PRC-1480	VDOT Review/ Comment Bearing Pads shop drawings	21	19-Oct-23	08-Nov-23	313
PRC-1520	Fabricate Bearing Pads for E.Branch River Bridge	90	09-Nov-23	20-Mar-24	215
Hampton River Bridge		132	18-Oct-23	20-May-24	259
Rebar		132	18-Oct-23	20-May-24	259
PRC-1420	Prepare and submit Rebar shop drawings	45	18-Oct-23	22-Dec-23	272
PRC-1570	VDOT Review/ Comment Rebar shop drawings	21	23-Dec-23	12-Jan-24	396
PRC-1610	Fabricate Rebar for Hampton River Bridge	90	12-Jan-24	20-May-24	274
Girders		132	18-Oct-23	20-May-24	259
PRC-1430	Prepare and submit Girders shop drawings	45	18-Oct-23	22-Dec-23	272
PRC-1580	VDOT Review/ Comment Girders shop drawings	21	23-Dec-23	12-Jan-24	396
PRC-1620	Fabricate Girders for Hampton River Bridge	90	12-Jan-24	20-May-24	274
Bearing Pads		132	18-Oct-23	20-May-24	259
PRC-1440	Prepare and submit Bearing Pads shop drawings	45	18-Oct-23	22-Dec-23	272
PRC-1590	VDOT Review/ Comment Bearing Pads shop drawings	21	23-Dec-23	12-Jan-24	396
PRC-1630	Fabricate Bearing Pads for Hampton River Bridge	90	12-Jan-24	20-May-24	274
King St. Bridge		271	10-Feb-23	08-Apr-24	43
Rebar		136	15-Aug-23	20-Mar-24	25
PRC-1380	Prepare and submit Rebar shop drawings	45	15-Aug-23	18-Oct-23	26
PRC-1490	VDOT Review/ Comment Rebar shop drawings	21	19-Oct-23	08-Nov-23	40
PRC-1530	Fabricate Rebar for King St. Bridge	90	09-Nov-23	20-Mar-24	26
Girders		104	18-Oct-23	08-Apr-24	43
PRC-1450	Prepare and submit Girders shop drawings	45	18-Oct-23	22-Dec-23	43
PRC-1600	VDOT Review/ Comment Girders shop drawings	21	23-Dec-23	12-Jan-24	66
PRC-1640	Fabricate Girders for King St. Bridge	60	12-Jan-24	08-Apr-24	45
Bearing Pads		114	10-Feb-23	02-Aug-23	35
PRC-1230	Prepare and submit Bearing Pads shop drawings	30	10-Feb-23	27-Mar-23	36
PRC-1240	VDOT Review/ Comment Bearing Pads shop drawings	21	28-Mar-23	17-Apr-23	50
PRC-1250	Fabricate Bearing Pads for King St. Bridge	75	17-Apr-23	02-Aug-23	35
Submittals ITS		403	11-May-23	17-Jan-25	354
Area 1		403	11-May-23	17-Jan-25	354
ITS Devices BOP to King St		247	03-Jan-24	17-Jan-25	334
PRC-1560	Area 1 - Prepare and submit shop drawings for ITS Devices BOP to King S	69	03-Jan-24	10-Apr-24	358
PRC-1660	Area 1- VDOT Review and approve shop drawings for ITS Devices BOP to	21	11-Apr-24	01-May-24	517
PRC-1690	Area 1- Fabricate / deliver ITS Devices BOP to King St (DMSs, CCTVs, M	180	02-May-24	17-Jan-25	358
ITS Devices King St to Bridge		343	11-May-23	11-Oct-24	414
PRC-1270	Area 1- Prepare and submit shop drawings for ITS Devices King St to Brid	70	11-May-23	18-Aug-23	541
PRC-1390	Area 1- VDOT Review and approve shop drawings for ITS Devices King S	21	19-Aug-23	08-Sep-23	782
PRC-1700	Area 1- Fabricate / deliver ITS Devices King St to Bridge (DMSs, CCTVs,	180	29-Jan-24	11-Oct-24	445
Area 2		162	11-May-23	12-Jan-24	203
ITS Devices WB- Hampton River Bridges		162	11-May-23	12-Jan-24	203
PRC-1280	Area 2 - Prepare and submit shop drawings for ITS Devices Hampton Rive	45	11-May-23	14-Jul-23	216
PRC-1310	Area 2 - VDOT Review and approve shop drawings for ITS Devices Hampt	21	15-Jul-23	04-Aug-23	312
PRC-1330	Area 2 - Fabricate/ deliver ITS Devices Hampton River Bridges (CCTVs, M	110	04-Aug-23	12-Jan-24	215
Area 3		274	11-May-23	03-Jul-24	357
Tolling Gantry and Equipment		274	11-May-23	03-Jul-24	357
PRC-1260	Area 3 - Prepare and submit shop drawings for Tolling Gantry Equipment	45	11-May-23	14-Jul-23	173
PRC-1320	Area 3 - VDOT Review and approve shop drawings for Tolling Gantry Equ	21	15-Jul-23	04-Aug-23	251
PRC-1340	Area 3 - Fabricate / deliver Tolling Gantry and Equipment	231	04-Aug-23	03-Jul-24	378



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Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
ITS Devices Bridge to EOP		112	04-Aug-23	29-Jan-24	301
PRC-1345	Prepare and submit shop drawings for EOP (DMSs, CCTVs, MVDs, OHDs)	90	04-Aug-23	13-Dec-23	322
PRC-1355	VDOT Review and approve shop drawings for EOP	21	13-Dec-23	03-Jan-24	467
PRC-1365	Fabricate / deliver EOP (DMSs, CCTVs, MVDs, OHDs)	18	03-Jan-24	29-Jan-24	324
Submittals Signage & Ligthing		506	11-May-23	25-Jun-25	298
PRC-1300	Prepare and submit shop drawings for Light Poles and Luminaires	165	11-May-23	05-Jan-24	178
PRC-1540	VDOT Review and approve shop drawings for Light Poles and Luminaires	21	06-Jan-24	26-Jan-24	256
Area 1		298	08-Sep-23	12-Dec-24	236
PRC-1400	Area 1 - Prepare and submit shop drawings for Overhead Sign Structures	140	08-Sep-23	28-Mar-24	167
PRC-1720	Area 1 - Light Poles and Luminaires (Area 1) - Fabrication/Delivery	180	26-Jan-24	10-Oct-24	295
PRC-1650	Area 1 - VDOT Review and approve shop drawings for Overhead Sign Stru	21	29-Mar-24	18-Apr-24	238
PRC-1680	Area 1 - OH Sign Structures - Fabrication/Delivery	165	18-Apr-24	12-Dec-24	165
Area 2		300	18-Apr-24	25-Jun-25	316
PRC-1670	Area 2 - EB-B- Overhead Sign Structures- Shop Drawings/Approvals	127	18-Apr-24	17-Oct-24	333
PRC-1730	Area 2 - Light Poles and Luminaires - Fabrication/Delivery	178	10-Oct-24	25-Jun-25	295
PRC-1710	Area 2 - EB-B- Overhead Sign Structures - Fabrication/Delivery	156	17-Oct-24	02-Jun-25	333
Area 3		390	11-May-23	21-Nov-24	234
PRC-1290	Area 3 - OH Sign Structures- Shop Drawings/Approvals	83	11-May-23	07-Sep-23	167
PRC-1410	Area 3 - OH Sign Structures - Fabrication/Delivery	210	08-Sep-23	08-Jul-24	331
PRC-1550	Area 3 - Light Poles and Luminaires - Fabrication/Delivery	210	26-Jan-24	21-Nov-24	178
Quality Assurance / Quality Control Process (QA/ QC)		949	08-Nov-22	13-Nov-26	26
QAC-1000	Prepare/Submit Construction QA/QC Plan	15	08-Nov-22	30-Nov-22	83
QAC-1010	VDOT Review Construction QA/QC Plan	21	01-Dec-22	21-Dec-22	120
QAC-1020	Comment Responses and Resubmit Construction QA/QC Plan	10	21-Dec-22	06-Jan-23	83
QAC-1030	VDOT Review 2nd Submission Construction QA/QC Plan	21	07-Jan-23	27-Jan-23	118
QAC-1040	QA/QC Inspections/Reporting/As-Builts	962	27-Jan-23	13-Nov-26	0
QAC-1050	Construction QA/QC Plan Approved	0		27-Jan-23	83
QAC-1060	QA/QC Preparatory Meeting - Signage	5	18-May-23	25-May-23	0
QAC-1070	QA/QC Preparatory Meeting - Bridge Foundation/Concrete	5	25-May-23	02-Jun-23	0
QAC-1080	QA/QC Preparatory Meeting - Shoulder Strengthening	5	25-May-23	02-Jun-23	0
QAC-1090	QA/QC Preparatory Meeting - Intermediate Paving	5	06-Jun-23	13-Jun-23	0
QAC-1200	QA/QC Preparatory Meeting - Girders	5	15-Aug-23	22-Aug-23	848
QAC-1100	QA/QC Preparatory Meeting - Roadway Demolition	5	15-Aug-23	22-Aug-23	0
QAC-1110	QA/QC Preparatory Meeting - Environmental Sediment Controls	5	23-Aug-23	30-Aug-23	5
QAC-1120	QA/QC Preparatory Meeting - Jack & Bores	5	15-Nov-23	21-Nov-23	64
QAC-1130	QA/QC Preparatory Meeting - Grading & Drainage	5	02-Jan-24	09-Jan-24	53
QAC-1140	QA/QC Preparatory Meeting - Cement Treated Subbase	5	25-Jan-24	01-Feb-24	52
QAC-1150	QA/QC Preparatory Meeting - Bridge Piles	5	13-Mar-24	19-Mar-24	89
QAC-1160	QA/QC Preparatory Meeting - Bridge Decks	5	04-Apr-24	11-Apr-24	10
QAC-1170	QA/QC Preparatory Meeting - RW and Noise Barriers	5	04-Sep-24	11-Sep-24	140
QAC-1180	QA/QC Preparatory Meeting - OH Signs & Lighting	5	30-Dec-24	07-Jan-25	149
QAC-1190	QA/QC Preparatory Meeting - Surface Paving / Pavement Markings	5	06-Oct-25	13-Oct-25	194
Construction		823	25-May-23	06-Nov-26	30
Stage 1 - Shoulder Strengthening and Lane Shift		56	25-May-23	15-Aug-23	0
CON1-1000	Begin Stage 1 Construction	0	25-May-23		0
I-64 Eastbound		33	25-May-23	13-Jul-23	18
CON1-1010	Set MOT Signage and PCMS Boards	5	25-May-23	02-Jun-23	0
CON1-1030	Mill Eastbound Shoulders and Bridge Locations	10	02-Jun-23	16-Jun-23	0
CON1-1040	Base Pave Eastbound Shoulders	10	02-Jun-23	16-Jun-23	0
CON1-1050	Intermediate Pave Eastbound Shoulders	5	13-Jun-23	20-Jun-23	0
CON1-1060	Grade for Construction Entrances Eastbound	3	13-Jun-23	16-Jun-23	13
CON1-1080	Place Temp Asphalt at Construction Entances Eastbound	3	16-Jun-23	21-Jun-23	13
CON1-1100	I-64 Eastbound Lane Shift- Eradicate and Install Temp Pavement Mkgs	7	21-Jun-23	30-Jun-23	13
CON1-1110	Set Traffic Barrier Service - I-64 Eastbound	10	28-Jun-23	13-Jul-23	13
CON1-1150	Set Temp Traffic Attenuators Eastbound	5	06-Jul-23	13-Jul-23	18
I-64 Westbound		40	02-Jun-23	31-Jul-23	11
CON1-1020	Set MOT Signage and PCMS Boards	5	02-Jun-23	09-Jun-23	7
CON1-1070	Mill Westbound Shoulders and Bridges Locations	10	16-Jun-23	30-Jun-23	2
CON1-1090	Base Pave Westbound Shoulders	10	20-Jun-23	05-Jul-23	0
CON1-1120	Intermediate Pave Westbound Shoulders	5	29-Jun-23	07-Jul-23	0
CON1-1130	Grade for Construction Entrances Westbound	3	29-Jun-23	05-Jul-23	11

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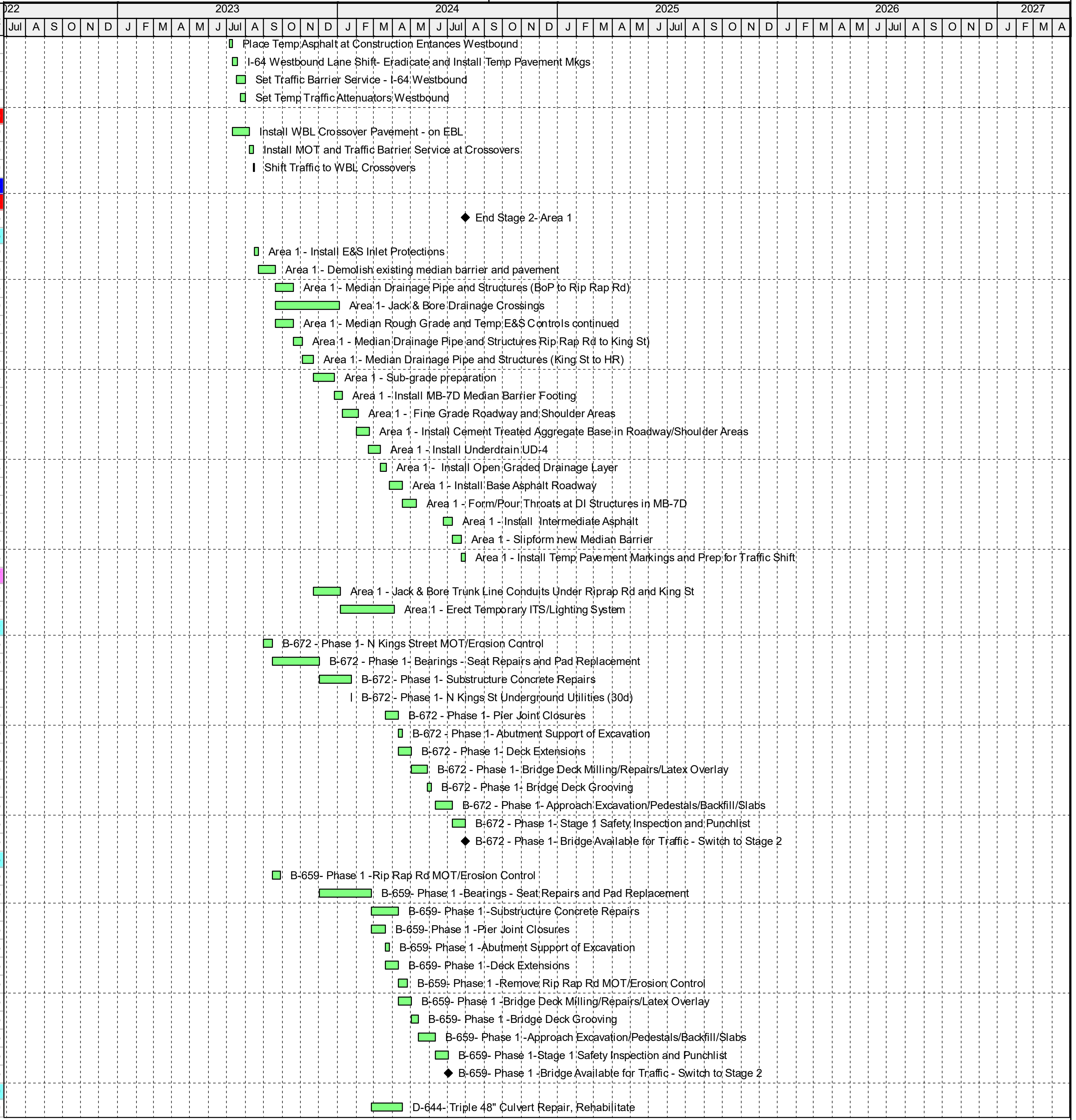
C00117841DB111- I-64 Hampton Roads Express Lanes (HREL) Segment 4C | 4.6.1 Proposal Schedule | 12- May- 22

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
CON1-1140	Place Temp Asphalt at Construction Entances Westbound	3	05-Jul-23	10-Jul-23	11
CON1-1170	I-64 Westbound Lane Shift- Eradicate and Install Temp Pavement Mkgs	7	10-Jul-23	19-Jul-23	11
CON1-1180	Set Traffic Barrier Service - I-64 Westbound	10	17-Jul-23	31-Jul-23	11
CON1-1190	Set Temp Traffic Attenuators Westbound	5	24-Jul-23	31-Jul-23	11
I-64 Westbound Crossovers to EB -Hampton River Bridge		27	10-Jul-23	15-Aug-23	0
CON1-1160	Install WBL Crossover Pavement - on EBL	20	10-Jul-23	07-Aug-23	0
CON1-1200	Install MOT and Traffic Barrier Service at Crossovers	5	07-Aug-23	14-Aug-23	0
CON1-1210	Shift Traffic to WBL Crossovers	1	15-Aug-23	15-Aug-23	0
Stage 2 - I-64 Reconstruct Median & 1st Phase of the Bridges		380	15-Aug-23	31-Mar-25	22
Area 1 - 658+73 to 721+13 (6,240 LF)		226	15-Aug-23	31-Jul-24	92
CON2-A1-1530	End Stage 2- Area 1	0		31-Jul-24	5
Area 1- Roadway		226	15-Aug-23	31-Jul-24	5
CON2-A1-1020	Area 1 - Install E&S Inlet Protections	5	15-Aug-23	22-Aug-23	0
CON2-A1-1030	Area 1 - Demolish existing median barrier and pavement	20	22-Aug-23	20-Sep-23	0
CON2-A1-1110	Area 1 - Median Drainage Pipe and Structures (BoP to Rip Rap Rd)	20	20-Sep-23	19-Oct-23	46
CON2-A1-1120	Area 1- Jack & Bore Drainage Crossings	65	20-Sep-23	04-Jan-24	0
CON2-A1-1130	Area 1 - Median Rough Grade and Temp E&S Controls continued	20	20-Sep-23	19-Oct-23	66
CON2-A1-1140	Area 1 - Median Drainage Pipe and Structures Rip Rap Rd to King St)	10	19-Oct-23	03-Nov-23	46
CON2-A1-1150	Area 1 - Median Drainage Pipe and Structures (King St to HR)	10	03-Nov-23	21-Nov-23	46
CON2-A1-1160	Area 1 - Sub-grade preparation	20	21-Nov-23	26-Dec-23	46
CON2-A1-1210	Area 1 - Install MB-7D Median Barrier Footing	8	26-Dec-23	09-Jan-24	46
CON2-A1-1230	Area 1 - Fine Grade Roadway and Shoulder Areas	17	09-Jan-24	05-Feb-24	46
CON2-A1-1250	Area 1 - Install Cement Treated Aggregate Base in Roadway/Shoulder Are	12	01-Feb-24	23-Feb-24	46
CON2-A1-1260	Area 1 - Install Underdrain UD-4	12	20-Feb-24	12-Mar-24	46
CON2-A1-1300	Area 1 - Install Open Graded Drainage Layer	8	12-Mar-24	22-Mar-24	46
CON2-A1-1340	Area 1 - Install Base Asphalt Roadway	15	27-Mar-24	17-Apr-24	46
CON2-A1-1380	Area 1 - Form/Pour Throats at DI Structures in MB-7D	15	18-Apr-24	10-May-24	46
CON2-A1-1470	Area 1 - Install Intermediate Asphalt	10	25-Jun-24	10-Jul-24	5
CON2-A1-1500	Area 1 - Slipform new Median Barrier	10	10-Jul-24	24-Jul-24	5
CON2-A1-1510	Area 1 - Install Temp Pavement Markings and Prep for Traffic Shift	5	24-Jul-24	31-Jul-24	5
Area 1- ITS, Signage & Ligthing		135	22-Nov-23	04-Apr-24	97
CON2-A1-1170	Area 1 - Jack & Bore Trunk Line Conduits Under Riprap Rd and King St	45	22-Nov-23	05-Jan-24	97
CON2-A1-1220	Area 1 - Erect Temporary ITS/Lighting System	90	06-Jan-24	04-Apr-24	97
B-672- I-64 EBL/WBL over King Street - Phase 1		215	30-Aug-23	31-Jul-24	92
CON2-A1-1060	B-672 - Phase 1- N Kings Street MOT/Erosion Control	10	30-Aug-23	14-Sep-23	5
CON2-A1-1100	B-672 - Phase 1- Bearings - Seat Repairs and Pad Replacement	50	14-Sep-23	01-Dec-23	5
CON2-A1-1200	B-672 - Phase 1- Substructure Concrete Repairs	30	01-Dec-23	23-Jan-24	217
CON2-A1-1240	B-672 - Phase 1- N Kings St Underground Utilities (30d)	0	23-Jan-24	23-Jan-24	217
CON2-A1-1310	B-672 - Phase 1- Pier Joint Closures	15	20-Mar-24	11-Apr-24	10
CON2-A1-1430	B-672 - Phase 1- Abutment Support of Excavation	5	11-Apr-24	18-Apr-24	40
CON2-A1-1370	B-672 - Phase 1- Deck Extensions	15	11-Apr-24	03-May-24	10
CON2-A1-1410	B-672 - Phase 1- Bridge Deck Milling/Repairs/Latex Overlay	15	03-May-24	28-May-24	10
CON2-A1-1440	B-672 - Phase 1- Bridge Deck Grooving	5	28-May-24	04-Jun-24	10
CON2-A1-1460	B-672 - Phase 1- Approach Excavation/Pedestals/Backfill/Slabs	20	11-Jun-24	10-Jul-24	5
CON2-A1-1490	B-672 - Phase 1- Stage 1 Safety Inspection and Punchlist	15	10-Jul-24	31-Jul-24	5
CON2-A1-1520	B-672 - Phase 1- Bridge Available for Traffic - Switch to Stage 2	0		31-Jul-24	5
B-659 - I-64 EBL/WBL over Rip Rap Road -Phase 1		185	14-Sep-23	02-Jul-24	25
CON2-A1-1090	B-659- Phase 1 -Rip Rap Rd MOT/Erosion Control	10	14-Sep-23	28-Sep-23	45
CON2-A1-1190	B-659- Phase 1 -Bearings - Seat Repairs and Pad Replacement	50	01-Dec-23	26-Feb-24	5
CON2-A1-1280	B-659- Phase 1 -Substructure Concrete Repairs	30	26-Feb-24	11-Apr-24	40
CON2-A1-1290	B-659- Phase 1 -Pier Joint Closures	15	26-Feb-24	20-Mar-24	5
CON2-A1-1320	B-659- Phase 1 -Abutment Support of Excavation	5	20-Mar-24	27-Mar-24	35
CON2-A1-1330	B-659- Phase 1 -Deck Extensions	15	20-Mar-24	11-Apr-24	5
CON2-A1-1350	B-659- Phase 1 -Remove Rip Rap Rd MOT/Erosion Control	10	11-Apr-24	25-Apr-24	55
CON2-A1-1360	B-659- Phase 1 -Bridge Deck Milling/Repairs/Latex Overlay	15	11-Apr-24	03-May-24	5
CON2-A1-1400	B-659- Phase 1 -Bridge Deck Grooving	5	03-May-24	13-May-24	5
CON2-A1-1420	B-659- Phase 1 -Approach Excavation/Pedestals/Backfill/Slabs	20	13-May-24	11-Jun-24	5
CON2-A1-1450	B-659- Phase 1-Stage 1 Safety Inspection and Punchlist	15	11-Jun-24	02-Jul-24	25
CON2-A1-1480	B-659- Phase 1 -Bridge Available for Traffic - Switch to Stage 2	0		02-Jul-24	25
D-644- Triple 48 RCP Carrying Brights Creek Beneath I-64		35	26-Feb-24	18-Apr-24	40
CON2-A1-1270	D-644- Triple 48" Culvert Repair, Rehabilitate	35	26-Feb-24	18-Apr-24	40



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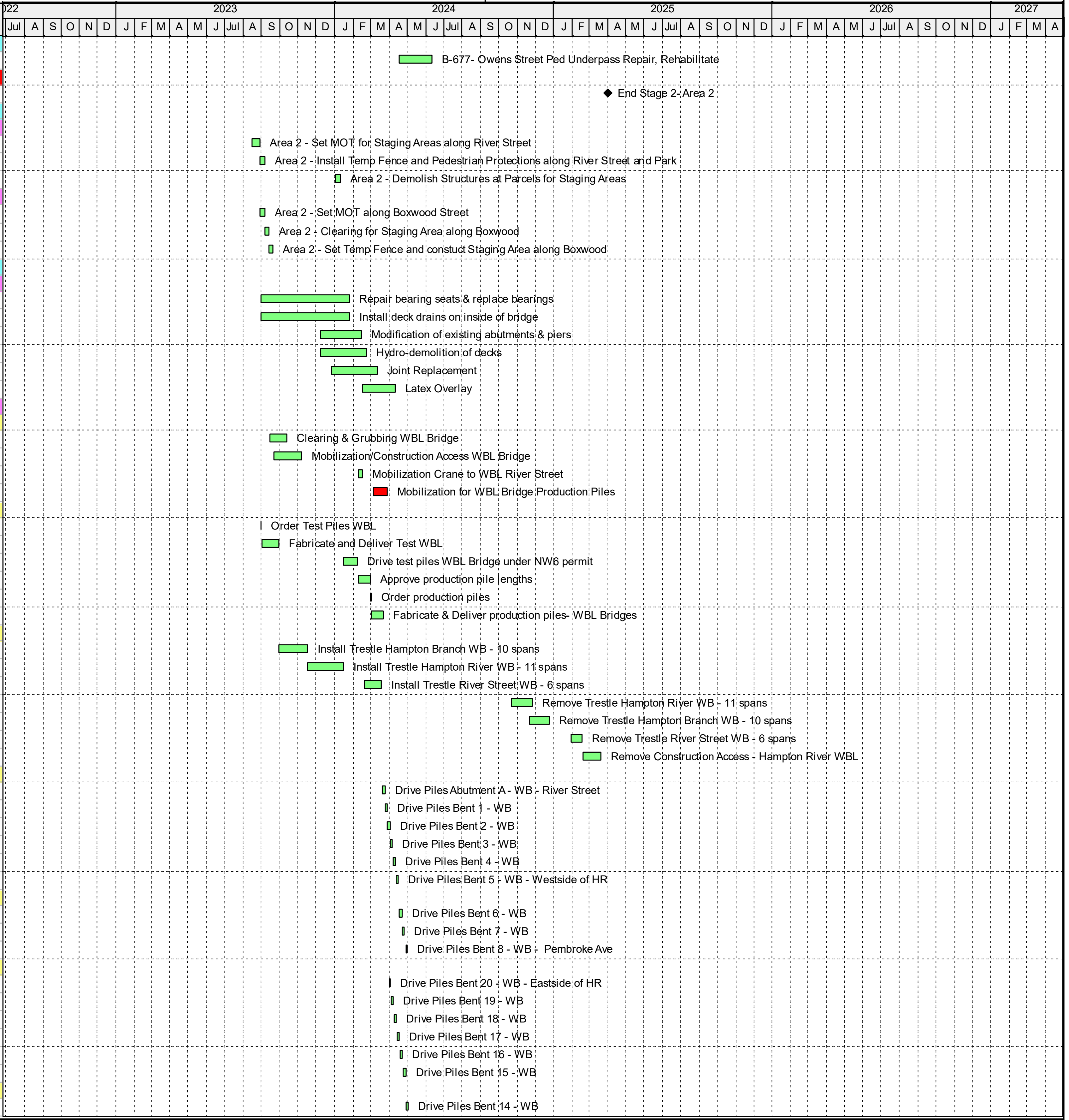
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
B-677- Owens Street Pedestrian Underpass		35	18-Apr-24	11-Jun-24	40
CON2-A1-1390	B-677- Owens Street Ped Underpass Repair, Rehabilitate	35	18-Apr-24	11-Jun-24	40
Area 2 - 721+13 to 748+22 (2,709 LF)		380	15-Aug-23	31-Mar-25	11
CON2-A2-1540	End Stage 2- Area 2	0		31-Mar-25	11
Area 2 -Roadway		94	15-Aug-23	11-Jan-24	102
River Street		94	15-Aug-23	11-Jan-24	102
CON2-A2-1000	Area 2 - Set MOT for Staging Areas along River Street	10	15-Aug-23	29-Aug-23	6
CON2-A2-1020	Area 2 - Install Temp Fence and Pedestrian Protections along River Street	5	29-Aug-23	06-Sep-23	176
CON2-A2-1050	Area 2 - Demolish Structures at Parcels for Staging Areas	5	02-Jan-24	11-Jan-24	102
Boxwood Street		15	29-Aug-23	20-Sep-23	118
CON2-A2-1010	Area 2 - Set MOT along Boxwood Street	5	29-Aug-23	06-Sep-23	6
CON2-A2-1030	Area 2 - Clearing for Staging Area along Boxwood	5	06-Sep-23	13-Sep-23	6
CON2-A2-1040	Area 2 - Set Temp Fence and constuct Staging Area along Boxwood	5	13-Sep-23	20-Sep-23	118
Westbound Bridge		369	31-Aug-23	31-Mar-25	11
WB Bridge Repairs		135	31-Aug-23	11-Apr-24	141
1BWRE1000	Repair bearing seats & replace bearings	88	31-Aug-23	26-Jan-24	141
1BWRE1010	Install deck drains on inside of bridge	88	31-Aug-23	26-Jan-24	178
1BWRE1020	Modification of existing abutments & piers	40	08-Dec-23	15-Feb-24	141
1BWRE1030	Hydro-demolition of decks	45	08-Dec-23	23-Feb-24	151
1BWRE1040	Joint Replacement	45	27-Dec-23	11-Mar-24	151
1BWRE1050	Latex Overlay	35	16-Feb-24	11-Apr-24	141
WBL Bridge Widening		369	31-Aug-23	31-Mar-25	11
Mobilization		119	14-Sep-23	29-Mar-24	54
1BWMO1000	Clearing & Grubbing WBL Bridge	20	14-Sep-23	13-Oct-23	5
1BWMO1010	Mobilization/Construction Access WBL Bridge	30	22-Sep-23	07-Nov-23	5
1BWMO1020	Mobilization Crane to WBL River Street	5	09-Feb-24	16-Feb-24	80
1BWMO1030	Mobilization for WBL Bridge Production Piles	15	06-Mar-24	29-Mar-24	0
Test Piles		127	31-Aug-23	22-Mar-24	5
1BWTP1000	Order Test Piles WBL	1	31-Aug-23	31-Aug-23	116
1BWTP1010	Fabricate and Deliver Test WBL	30	01-Sep-23	30-Sep-23	116
1BWTP1020	Drive test piles WBL Bridge under NW6 permit	15	16-Jan-24	08-Feb-24	5
1BWTP1030	Approve production pile lengths	21	09-Feb-24	29-Feb-24	9
1BWTP1040	Order production piles	1	01-Mar-24	01-Mar-24	9
1BWTP1050	Fabricate & Deliver production piles- WBL Bridges	21	02-Mar-24	22-Mar-24	9
Trestle		327	29-Sep-23	21-Mar-25	6
1BWTR1010	Install Trestle Hampton Branch WB - 10 spans	30	29-Sep-23	16-Nov-23	5
1RWTR1000	Install Trestle Hampton River WB - 11 spans	33	17-Nov-23	15-Jan-24	5
1RWTR1010	Install Trestle River Street WB - 6 spans	18	19-Feb-24	18-Mar-24	80
1RWTR1020	Remove Trestle Hampton River WB - 11 spans	22	22-Oct-24	26-Nov-24	40
1RWTR1030	Remove Trestle Hampton Branch WB - 10 spans	20	21-Nov-24	24-Dec-24	36
1RWTR1040	Remove Trestle River Street WB - 6 spans	12	29-Jan-25	17-Feb-25	6
1RWTR1050	Remove Construction Access - Hampton River WBL	20	18-Feb-25	21-Mar-25	6
Piling River St.		19	20-Mar-24	16-Apr-24	97
1RWPD1000	Drive Piles Abutment A - WB - River Street	4	20-Mar-24	25-Mar-24	80
1RWPD1010	Drive Piles Bent 1 - WB	3	26-Mar-24	28-Mar-24	80
1RWPD1020	Drive Piles Bent 2 - WB	3	29-Mar-24	02-Apr-24	82
1RWPD1030	Drive Piles Bent 3 - WB	3	03-Apr-24	05-Apr-24	97
1RWPD1040	Drive Piles Bent 4 - WB	3	08-Apr-24	11-Apr-24	97
1RWPD1050	Drive Piles Bent 5 - WB - Westside of HR	3	12-Apr-24	16-Apr-24	97
Piling Trestle HR River St.		9	18-Apr-24	01-May-24	97
1RWPD1060	Drive Piles Bent 6 - WB	3	18-Apr-24	22-Apr-24	97
1RWPD1070	Drive Piles Bent 7 - WB	3	23-Apr-24	26-Apr-24	97
1RWPD1080	Drive Piles Bent 8 - WB - Pembroke Ave	3	29-Apr-24	01-May-24	97
Piling Trestle HR East		18	01-Apr-24	29-Apr-24	80
1RWPD1200	Drive Piles Bent 20 - WB - Eastside of HR	3	01-Apr-24	03-Apr-24	24
1RWPD1190	Drive Piles Bent 19 - WB	3	04-Apr-24	08-Apr-24	67
1RWPD1180	Drive Piles Bent 18 - WB	3	10-Apr-24	12-Apr-24	71
1RWPD1170	Drive Piles Bent 17 - WB	3	15-Apr-24	18-Apr-24	73
1RWPD1160	Drive Piles Bent 16 - WB	3	19-Apr-24	23-Apr-24	78
1RWPD1150	Drive Piles Bent 15 - WB	3	24-Apr-24	29-Apr-24	80
Piling Hampton River		20	30-Apr-24	30-May-24	84
1RWPD1140	Drive Piles Bent 14 - WB	3	30-Apr-24	02-May-24	83



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SHIRLEY CONTRACTING COMPANY, LLC
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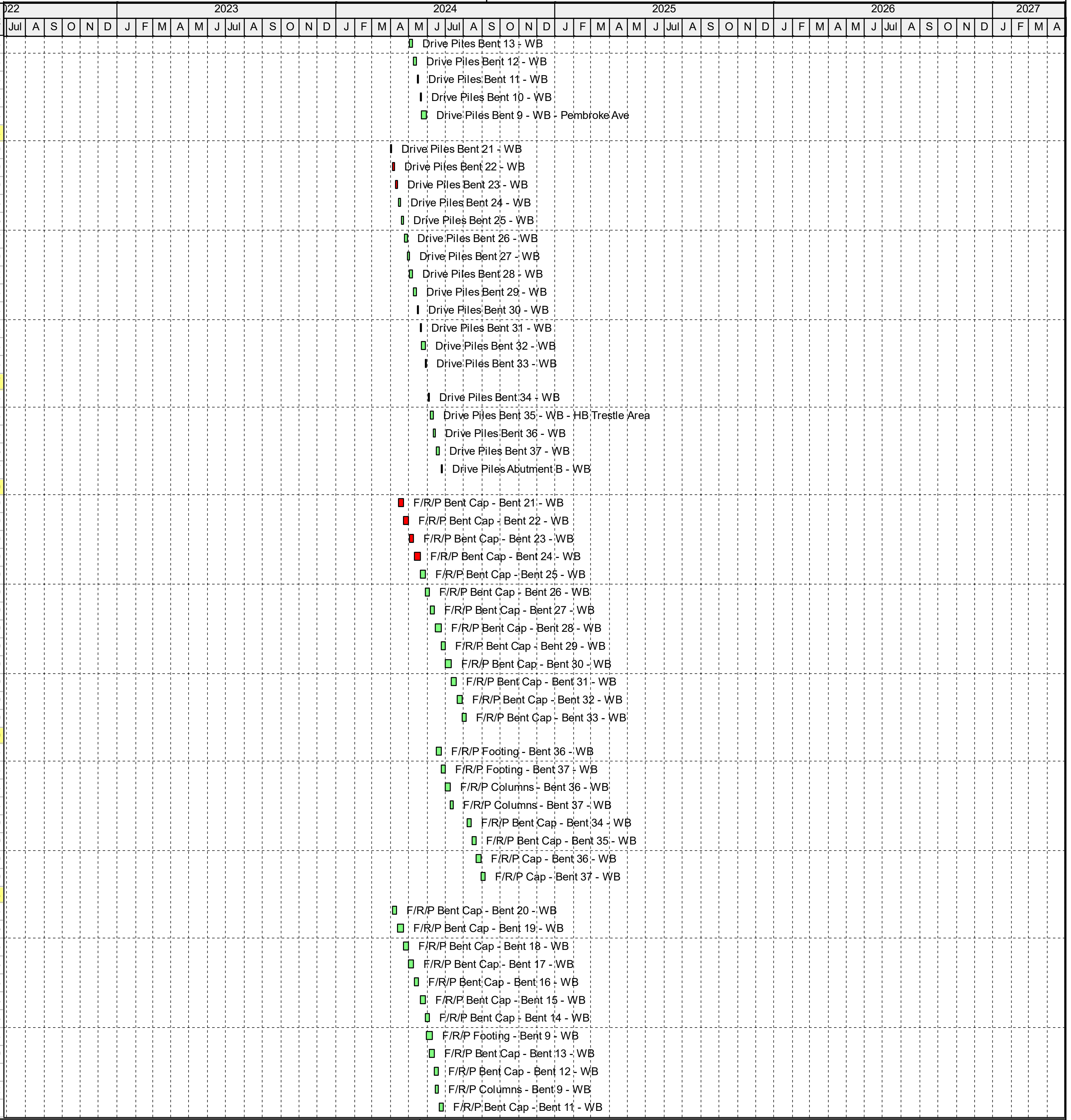
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
1RWPD1130	Drive Piles Bent 13 - WB	3	03-May-24	07-May-24	84
1RWPD1120	Drive Piles Bent 12 - WB	3	09-May-24	13-May-24	84
1RWPD1110	Drive Piles Bent 11 - WB	3	15-May-24	17-May-24	84
1RWPD1100	Drive Piles Bent 10 - WB	3	20-May-24	22-May-24	84
1RWPD1090	Drive Piles Bent 9 - WB - Pembroke Ave	5	23-May-24	30-May-24	84
Piling Boxwood		**39**	**01-Apr-24**	**31-May-24**	**34**
1WWPD1000	Drive Piles Bent 21 - WB	3	01-Apr-24	03-Apr-24	0
1WWPD1005	Drive Piles Bent 22 - WB	3	04-Apr-24	08-Apr-24	0
1WWPD1010	Drive Piles Bent 23 - WB	3	10-Apr-24	12-Apr-24	0
1WWPD1020	Drive Piles Bent 24 - WB	3	15-Apr-24	18-Apr-24	13
1WWPD1030	Drive Piles Bent 25 - WB	3	19-Apr-24	23-Apr-24	25
1WWPD1040	Drive Piles Bent 26 - WB	3	24-Apr-24	29-Apr-24	27
1WWPD1050	Drive Piles Bent 27 - WB	3	30-Apr-24	02-May-24	30
1WWPD1060	Drive Piles Bent 28 - WB	3	03-May-24	07-May-24	32
1WWPD1070	Drive Piles Bent 29 - WB	3	09-May-24	13-May-24	34
1WWPD1080	Drive Piles Bent 30 - WB	3	15-May-24	17-May-24	34
1WWPD1090	Drive Piles Bent 31 - WB	3	20-May-24	22-May-24	34
1WWPD1100	Drive Piles Bent 32 - WB	3	23-May-24	28-May-24	34
1WWPD1110	Drive Piles Bent 33 - WB	3	29-May-24	31-May-24	34
Piling Trestle East Branch Hampton River		**16**	**03-Jun-24**	**26-Jun-24**	**47**
1WWPD1120	Drive Piles Bent 34 - WB	3	03-Jun-24	05-Jun-24	34
1WWPDB1130	Drive Piles Bent 35 - WB - HB Trestle Area	3	07-Jun-24	11-Jun-24	34
1WWPDB1140	Drive Piles Bent 36 - WB	3	12-Jun-24	14-Jun-24	34
1WWPDB1150	Drive Piles Bent 37 - WB	4	17-Jun-24	21-Jun-24	35
1WWPDB1160	Drive Piles Abutment B - WB	3	24-Jun-24	26-Jun-24	47
Bent Cap Boxwood		**71**	**15-Apr-24**	**05-Aug-24**	**9**
1WWBC1160	F/R/P Bent Cap - Bent 21 - WB	5	15-Apr-24	22-Apr-24	0
1WWBC1170	F/R/P Bent Cap - Bent 22 - WB	6	23-Apr-24	01-May-24	0
1WWBC1180	F/R/P Bent Cap - Bent 23 - WB	5	02-May-24	09-May-24	0
1WWBC1190	F/R/P Bent Cap - Bent 24 - WB	6	10-May-24	20-May-24	0
1WWBC1200	F/R/P Bent Cap - Bent 25 - WB	5	21-May-24	28-May-24	9
1WWBC1210	F/R/P Bent Cap - Bent 26 - WB	6	29-May-24	05-Jun-24	9
1WWBC1220	F/R/P Bent Cap - Bent 27 - WB	5	07-Jun-24	13-Jun-24	9
1WWBC1230	F/R/P Bent Cap - Bent 28 - WB	6	14-Jun-24	24-Jun-24	9
1WWBC1240	F/R/P Bent Cap - Bent 29 - WB	5	25-Jun-24	01-Jul-24	9
1WWBC1250	F/R/P Bent Cap - Bent 30 - WB	6	02-Jul-24	11-Jul-24	9
1WWBC1260	F/R/P Bent Cap - Bent 31 - WB	5	12-Jul-24	19-Jul-24	9
1WWBC1270	F/R/P Bent Cap - Bent 32 - WB	6	22-Jul-24	29-Jul-24	9
1WWBC1280	F/R/P Bent Cap - Bent 33 - WB	5	30-Jul-24	05-Aug-24	9
Bent Cap East Hampton River Bridge		**54**	**17-Jun-24**	**06-Sep-24**	**9**
1WWFG1350	F/R/P Footing - Bent 36 - WB	5	17-Jun-24	24-Jun-24	34
1WWFG1360	F/R/P Footing - Bent 37 - WB	5	25-Jun-24	01-Jul-24	34
1WWPC1040	F/R/P Columns - Bent 36 - WB	4	02-Jul-24	09-Jul-24	34
1WWPC1060	F/R/P Columns - Bent 37 - WB	4	10-Jul-24	15-Jul-24	34
1WWBC1290	F/R/P Bent Cap - Bent 34 - WB	6	06-Aug-24	13-Aug-24	9
1WWBC1300	F/R/P Bent Cap - Bent 35 - WB	5	15-Aug-24	21-Aug-24	9
1WWPP1040	F/R/P Cap - Bent 36 - WB	6	22-Aug-24	29-Aug-24	9
1WWPP1060	F/R/P Cap - Bent 37 - WB	5	30-Aug-24	06-Sep-24	9
Bent Cap Hampton River		**65**	**04-Apr-24**	**18-Jul-24**	**73**
1WWBC1150	F/R/P Bent Cap - Bent 20 - WB	5	04-Apr-24	11-Apr-24	24
1WWBC1140	F/R/P Bent Cap - Bent 19 - WB	6	12-Apr-24	22-Apr-24	65
1WWBC1130	F/R/P Bent Cap - Bent 18 - WB	5	23-Apr-24	30-Apr-24	66
1WWBC1120	F/R/P Bent Cap - Bent 17 - WB	6	01-May-24	09-May-24	66
1WWBC1110	F/R/P Bent Cap - Bent 16 - WB	5	10-May-24	17-May-24	68
1WWBC1100	F/R/P Bent Cap - Bent 15 - WB	6	20-May-24	28-May-24	68
1WWBC1090	F/R/P Bent Cap - Bent 14 - WB	5	29-May-24	04-Jun-24	68
1WWFG1030	F/R/P Footing - Bent 9 - WB	6	31-May-24	10-Jun-24	84
1WWBC1080	F/R/P Bent Cap - Bent 13 - WB	5	05-Jun-24	12-Jun-24	69
1WWBC1070	F/R/P Bent Cap - Bent 12 - WB	5	13-Jun-24	20-Jun-24	71
1WRPP1040	F/R/P Columns - Bent 9 - WB	4	14-Jun-24	20-Jun-24	82
1WWBC1060	F/R/P Bent Cap - Bent 11 - WB	6	21-Jun-24	28-Jun-24	71



🟦 Actual Work
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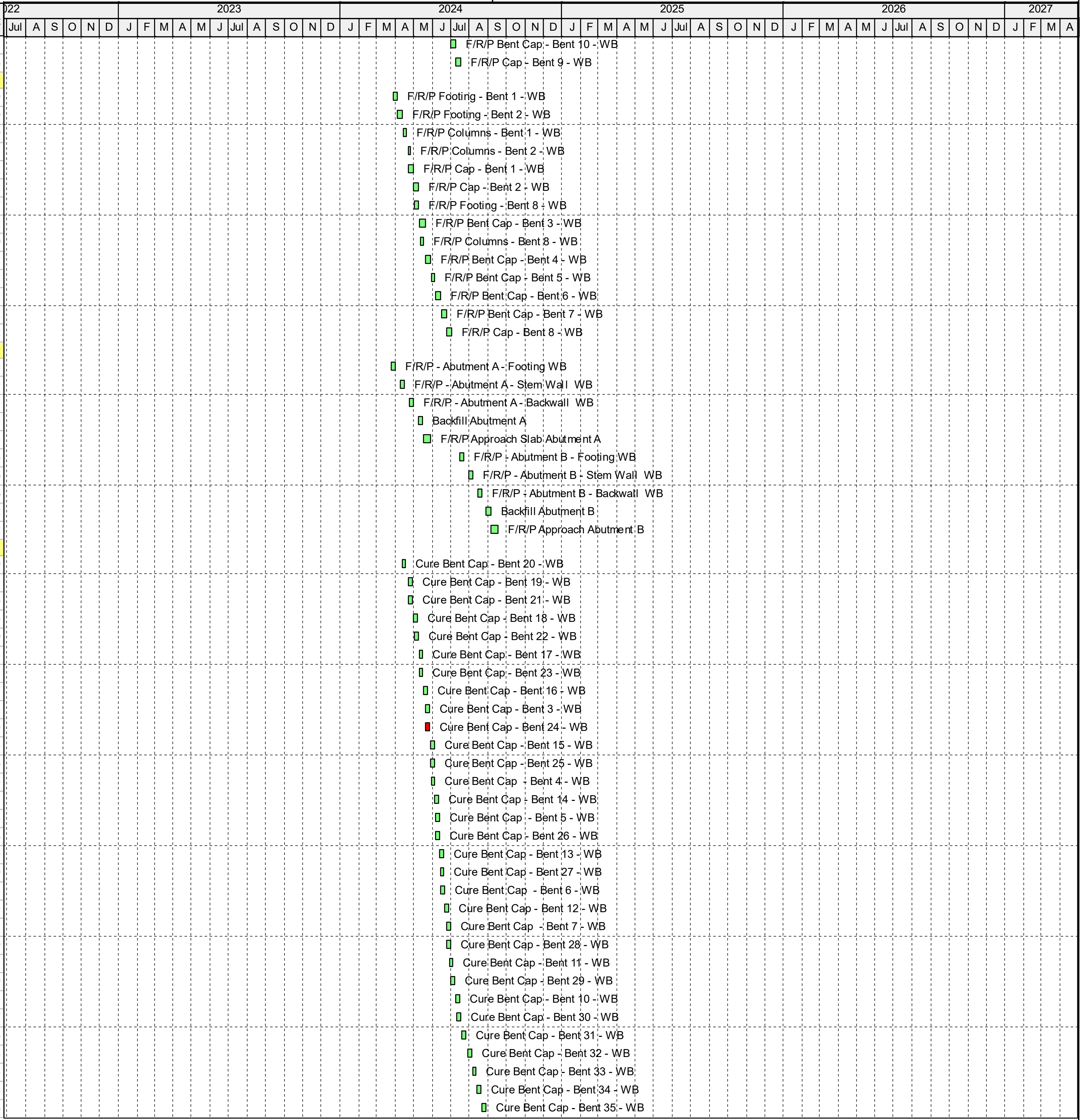
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
1WWBC1050	F/R/P Bent Cap - Bent 10 - WB	5	01-Jul-24	09-Jul-24	71
1WRPP1060	F/R/P Cap - Bent 9 - WB	6	10-Jul-24	18-Jul-24	73
Bent Cap River Street		**60**	**29-Mar-24**	**02-Jul-24**	**82**
1WWFG1000	F/R/P Footing - Bent 1 - WB	5	29-Mar-24	04-Apr-24	80
1WWFG1010	F/R/P Footing - Bent 2 - WB	5	05-Apr-24	12-Apr-24	80
1WWPC1000	F/R/P Columns - Bent 1 - WB	4	15-Apr-24	19-Apr-24	80
1WWPC1020	F/R/P Columns - Bent 2 - WB	4	22-Apr-24	26-Apr-24	81
1WRPP1000	F/R/P Cap - Bent 1 - WB	5	23-Apr-24	30-Apr-24	82
1WRPP1020	F/R/P Cap - Bent 2 - WB	6	01-May-24	09-May-24	82
1WWFG1020	F/R/P Footing - Bent 8 - WB	5	02-May-24	09-May-24	97
1WWBC1000	F/R/P Bent Cap - Bent 3 - WB	6	10-May-24	20-May-24	82
1REDK1540	F/R/P Columns - Bent 8 - WB	4	13-May-24	17-May-24	99
1WWBC1010	F/R/P Bent Cap - Bent 4 - WB	6	21-May-24	29-May-24	82
1WWBC1020	F/R/P Bent Cap - Bent 5 - WB	5	30-May-24	05-Jun-24	82
1WWBC1030	F/R/P Bent Cap - Bent 6 - WB	6	07-Jun-24	14-Jun-24	82
1WWBC1040	F/R/P Bent Cap - Bent 7 - WB	5	17-Jun-24	24-Jun-24	82
1REDK1560	F/R/P Cap - Bent 8 - WB	6	25-Jun-24	02-Jul-24	82
Abutments		**112**	**26-Mar-24**	**17-Sep-24**	**72**
1WWAB1000	F/R/P - Abutment A - Footing WB	5	26-Mar-24	01-Apr-24	109
1WWAB1020	F/R/P - Abutment A - Stem Wall WB	5	10-Apr-24	16-Apr-24	109
1WWAB1040	F/R/P - Abutment A - Backwall WB	5	24-Apr-24	01-May-24	146
1WWAB1060	Backfill Abutment A	5	09-May-24	16-May-24	144
1WWAB1070	F/R/P Approach Slab Abutment A	7	17-May-24	28-May-24	144
1WWAB1100	F/R/P - Abutment B - Footing WB	5	16-Jul-24	23-Jul-24	36
1WWAB1120	F/R/P - Abutment B - Stem Wall WB	5	31-Jul-24	06-Aug-24	35
1WWAB1140	F/R/P - Abutment B - Backwall WB	5	15-Aug-24	21-Aug-24	75
1WWAB1160	Backfill Abutment B	5	29-Aug-24	05-Sep-24	72
1WWAB1170	F/R/P Approach Abutment B	7	06-Sep-24	17-Sep-24	72
Cure - Bent Cap		**139**	**12-Apr-24**	**28-Aug-24**	**104**
1WWBC1155	Cure Bent Cap - Bent 20 - WB	7	12-Apr-24	18-Apr-24	40
1WWBC1145	Cure Bent Cap - Bent 19 - WB	7	23-Apr-24	29-Apr-24	104
1WWBC1165	Cure Bent Cap - Bent 21 - WB	7	23-Apr-24	29-Apr-24	28
1WWBC1135	Cure Bent Cap - Bent 18 - WB	7	01-May-24	07-May-24	105
1WWBC1175	Cure Bent Cap - Bent 22 - WB	7	02-May-24	08-May-24	19
1WWBC1125	Cure Bent Cap - Bent 17 - WB	7	10-May-24	16-May-24	104
1WWBC1185	Cure Bent Cap - Bent 23 - WB	7	10-May-24	16-May-24	11
1WWBC1115	Cure Bent Cap - Bent 16 - WB	7	18-May-24	24-May-24	107
1WWBC1005	Cure Bent Cap - Bent 3 - WB	7	21-May-24	27-May-24	156
1WWBC1195	Cure Bent Cap - Bent 24 - WB	7	21-May-24	27-May-24	0
1WWBC1105	Cure Bent Cap - Bent 15 - WB	7	29-May-24	04-Jun-24	105
1WWBC1205	Cure Bent Cap - Bent 25 - WB	7	29-May-24	04-Jun-24	16
1WWBC1015	Cure Bent Cap - Bent 4 - WB	7	30-May-24	05-Jun-24	155
1WWBC1095	Cure Bent Cap - Bent 14 - WB	7	05-Jun-24	11-Jun-24	107
1WWBC1025	Cure Bent Cap - Bent 5 - WB	7	06-Jun-24	12-Jun-24	158
1WWBC1215	Cure Bent Cap - Bent 26 - WB	7	06-Jun-24	12-Jun-24	18
1WWBC1085	Cure Bent Cap - Bent 13 - WB	7	13-Jun-24	19-Jun-24	109
1WWBC1225	Cure Bent Cap - Bent 27 - WB	7	14-Jun-24	20-Jun-24	20
1WWBC1035	Cure Bent Cap - Bent 6 - WB	7	15-Jun-24	21-Jun-24	164
1WWBC1075	Cure Bent Cap - Bent 12 - WB	7	21-Jun-24	27-Jun-24	110
1WWBC1045	Cure Bent Cap - Bent 7 - WB	7	25-Jun-24	01-Jul-24	162
1WWBC1235	Cure Bent Cap - Bent 28 - WB	7	25-Jun-24	01-Jul-24	20
1WWBC1065	Cure Bent Cap - Bent 11 - WB	7	29-Jun-24	05-Jul-24	111
1WWBC1245	Cure Bent Cap - Bent 29 - WB	7	02-Jul-24	08-Jul-24	20
1WWBC1055	Cure Bent Cap - Bent 10 - WB	7	10-Jul-24	16-Jul-24	110
1WWBC1255	Cure Bent Cap - Bent 30 - WB	7	12-Jul-24	18-Jul-24	17
1WWBC1265	Cure Bent Cap - Bent 31 - WB	7	20-Jul-24	26-Jul-24	16
1WWBC1275	Cure Bent Cap - Bent 32 - WB	7	30-Jul-24	05-Aug-24	14
1WWBC1285	Cure Bent Cap - Bent 33 - WB	7	06-Aug-24	12-Aug-24	14
1WWBC1295	Cure Bent Cap - Bent 34 - WB	7	14-Aug-24	20-Aug-24	14
1WWBC1305	Cure Bent Cap - Bent 35 - WB	7	22-Aug-24	28-Aug-24	18



🟦 Actual Work
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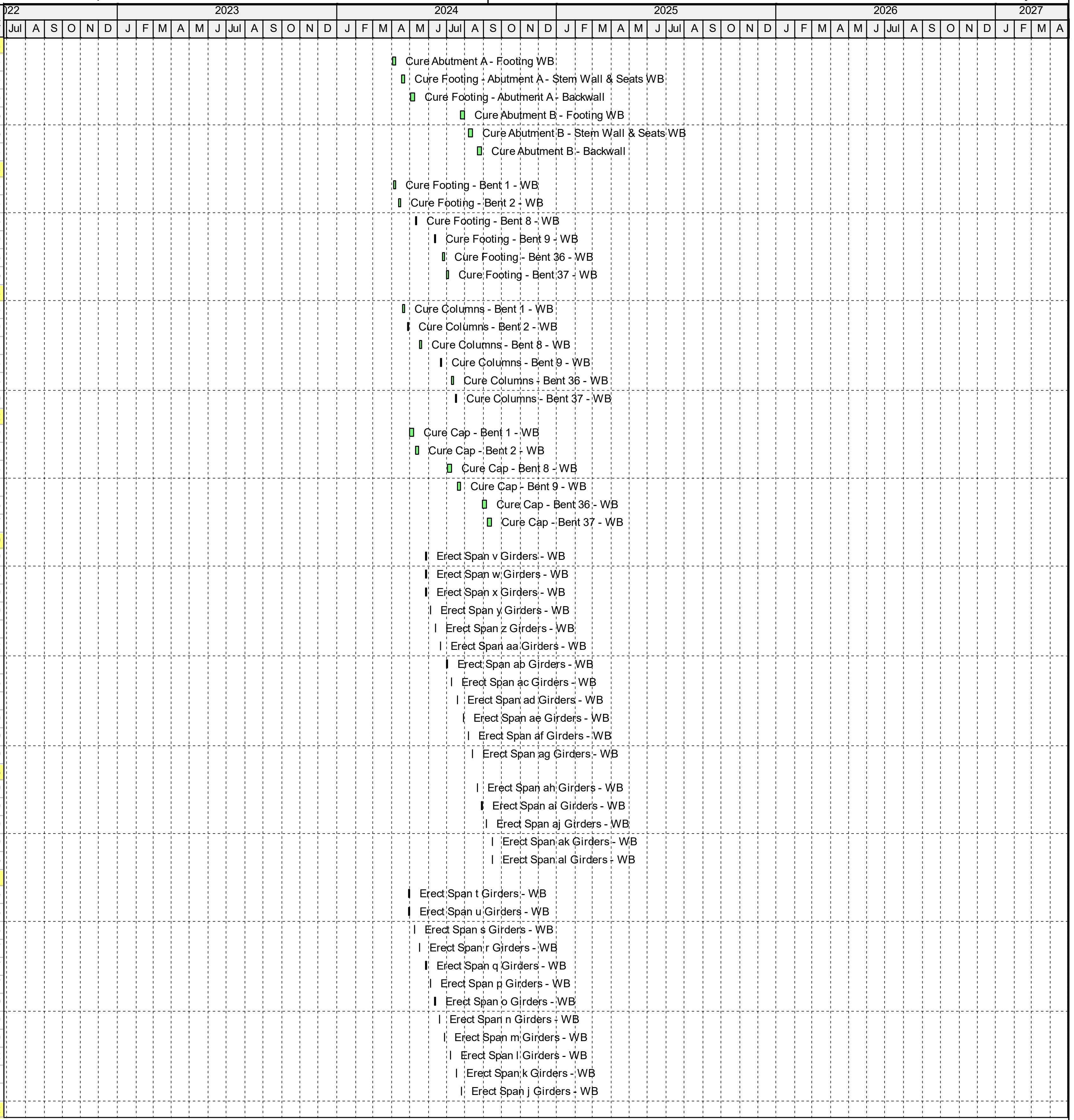
◆ Milestone

C00117841DB111- I-64 Hampton Roads Express Lanes (HREL) Segment 4C | 4.6.1 Proposal Schedule | 12- May- 22

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
Cure - Abutments		149	02-Apr-24	28-Aug-24	123
1WWAB1010	Cure Abutment A - Footing WB	7	02-Apr-24	08-Apr-24	174
1WWAB1030	Cure Footing - Abutment A - Stem Wall & Seats WB	7	17-Apr-24	23-Apr-24	173
1WWAB1050	Cure Footing - Abutment A - Backwall	7	02-May-24	08-May-24	235
1WWAB1110	Cure Abutment B - Footing WB	7	24-Jul-24	30-Jul-24	55
1WWAB1130	Cure Abutment B - Stem Wall & Seats WB	7	07-Aug-24	13-Aug-24	55
1WWAB1150	Cure Abutment B - Backwall	7	22-Aug-24	28-Aug-24	123
Cure - Footings		91	05-Apr-24	04-Jul-24	108
1WWFG1005	Cure Footing - Bent 1 - WB	3	05-Apr-24	07-Apr-24	134
1WWFG1015	Cure Footing - Bent 2 - WB	3	13-Apr-24	15-Apr-24	133
1WWFG1025	Cure Footing - Bent 8 - WB	3	10-May-24	12-May-24	155
1WWFG1035	Cure Footing - Bent 9 - WB	3	11-Jun-24	13-Jun-24	129
1WWFG1355	Cure Footing - Bent 36 - WB	3	25-Jun-24	27-Jun-24	56
1WWFG1365	Cure Footing - Bent 37 - WB	3	02-Jul-24	04-Jul-24	55
Cure - Pier Columns		90	20-Apr-24	18-Jul-24	103
1WWPC1010	Cure Columns - Bent 1 - WB	3	20-Apr-24	22-Apr-24	128
1WWPC1030	Cure Columns - Bent 2 - WB	3	27-Apr-24	29-Apr-24	129
1REDK1550	Cure Columns - Bent 8 - WB	3	18-May-24	20-May-24	162
1WRPP1050	Cure Columns - Bent 9 - WB	3	21-Jun-24	23-Jun-24	128
1WWPC1050	Cure Columns - Bent 36 - WB	3	10-Jul-24	12-Jul-24	54
1WWPC1070	Cure Columns - Bent 37 - WB	3	16-Jul-24	18-Jul-24	59
Cure - Pier Cap		136	01-May-24	13-Sep-24	72
1WRPP1010	Cure Cap - Bent 1 - WB	7	01-May-24	07-May-24	159
1WRPP1030	Cure Cap - Bent 2 - WB	7	10-May-24	16-May-24	160
1REDK1570	Cure Cap - Bent 8 - WB	7	03-Jul-24	09-Jul-24	138
1WRPP1070	Cure Cap - Bent 9 - WB	7	19-Jul-24	25-Jul-24	111
1WWPP1050	Cure Cap - Bent 36 - WB	7	30-Aug-24	05-Sep-24	18
1WWPP1070	Cure Cap - Bent 37 - WB	7	07-Sep-24	13-Sep-24	17
Girders Boxwood		51	28-May-24	13-Aug-24	9
1WWGD1210	Erect Span v Girders - WB	1	28-May-24	28-May-24	0
1WWGD1220	Erect Span w Girders - WB	1	28-May-24	28-May-24	4
1WWGD1230	Erect Span x Girders - WB	1	28-May-24	28-May-24	10
1WWGD1240	Erect Span y Girders - WB	1	05-Jun-24	05-Jun-24	10
1WWGD1250	Erect Span z Girders - WB	1	13-Jun-24	13-Jun-24	11
1WWGD1260	Erect Span aa Girders - WB	1	21-Jun-24	21-Jun-24	12
1WWGD1270	Erect Span ab Girders - WB	1	02-Jul-24	02-Jul-24	11
1WWGD1280	Erect Span ac Girders - WB	1	09-Jul-24	09-Jul-24	13
1WWGD1290	Erect Span ad Girders - WB	1	19-Jul-24	19-Jul-24	11
1WWGD1300	Erect Span ae Girders - WB	1	29-Jul-24	29-Jul-24	10
1WWGD1310	Erect Span af Girders - WB	1	06-Aug-24	06-Aug-24	9
1WWGD1320	Erect Span ag Girders - WB	1	13-Aug-24	13-Aug-24	9
Girders East Branch Hampton River Bridge		17	21-Aug-24	16-Sep-24	15
1WWGD1330	Erect Span ah Girders - WB	1	21-Aug-24	21-Aug-24	9
1WWGD1340	Erect Span ai Girders - WB	1	29-Aug-24	29-Aug-24	10
1WWGD1350	Erect Span aj Girders - WB	1	06-Sep-24	06-Sep-24	10
1WWGD1360	Erect Span ak Girders - WB	1	16-Sep-24	16-Sep-24	10
1WWGD1370	Erect Span al Girders - WB	1	16-Sep-24	16-Sep-24	15
Girders Hampton River		56	30-Apr-24	26-Jul-24	71
1WWGD1190	Erect Span t Girders - WB	1	30-Apr-24	30-Apr-24	66
1WWGD1200	Erect Span u Girders - WB	1	30-Apr-24	30-Apr-24	18
1WWGD1180	Erect Span s Girders - WB	1	09-May-24	09-May-24	66
1WWGD1170	Erect Span r Girders - WB	1	17-May-24	17-May-24	67
1WWGD1160	Erect Span q Girders - WB	1	28-May-24	28-May-24	67
1WWGD1150	Erect Span p Girders - WB	1	05-Jun-24	05-Jun-24	67
1WWGD1140	Erect Span o Girders - WB	1	12-Jun-24	12-Jun-24	69
1WWGD1130	Erect Span n Girders - WB	1	20-Jun-24	20-Jun-24	70
1WWGD1120	Erect Span m Girders - WB	1	28-Jun-24	28-Jun-24	70
1WWGD1110	Erect Span l Girders - WB	1	08-Jul-24	08-Jul-24	72
1WWGD1100	Erect Span k Girders - WB	1	18-Jul-24	18-Jul-24	71
1WWGD1090	Erect Span j Girders - WB	1	26-Jul-24	26-Jul-24	71
Girders River Street		50	09-May-24	26-Jul-24	92



🟦 Actual Work	🟥 Critical Remaining Work
🟩 Remaining Work ◆	◆ Milestone

SHIRLEY CONTRACTING COMPANY, LLC
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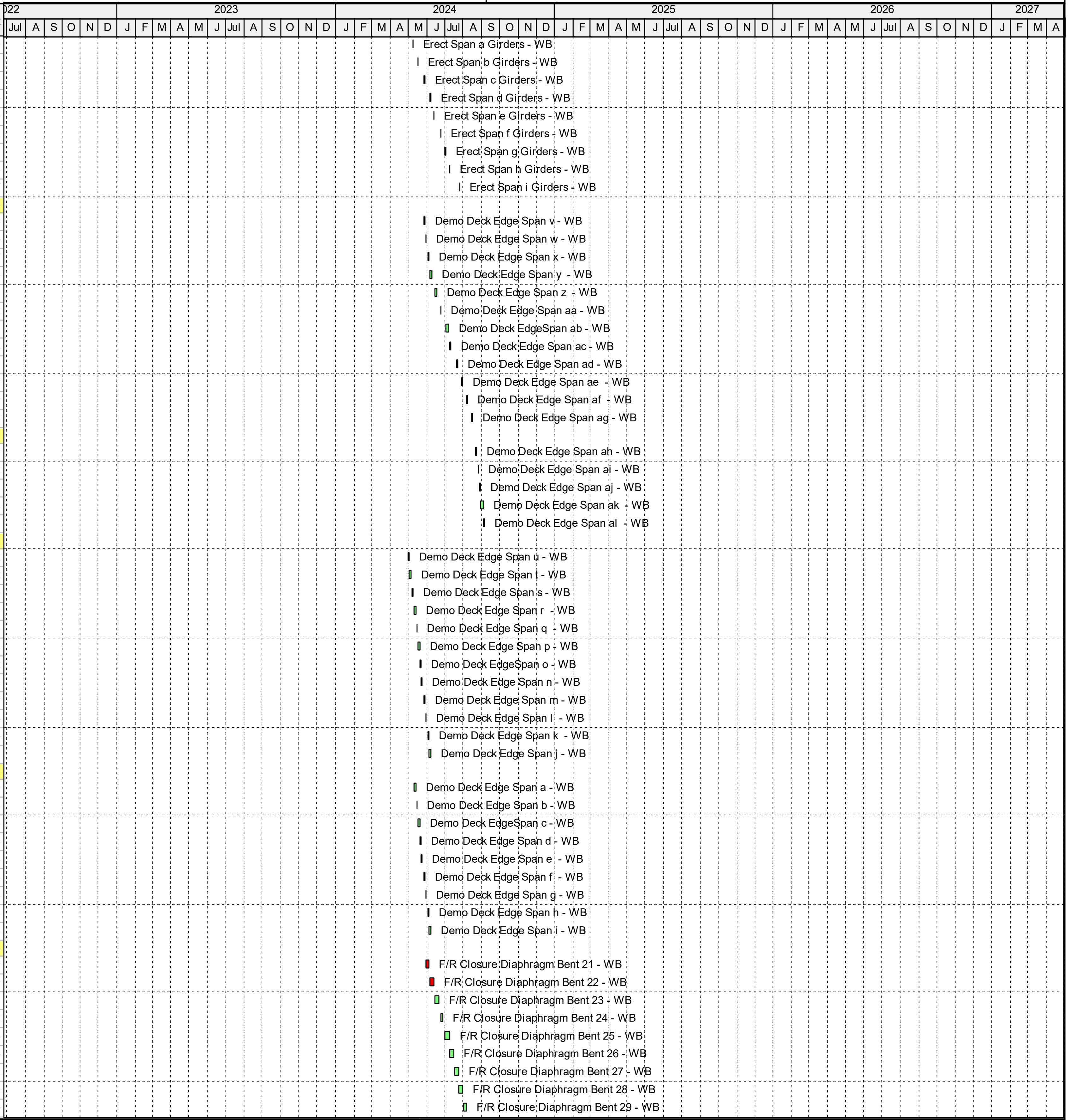
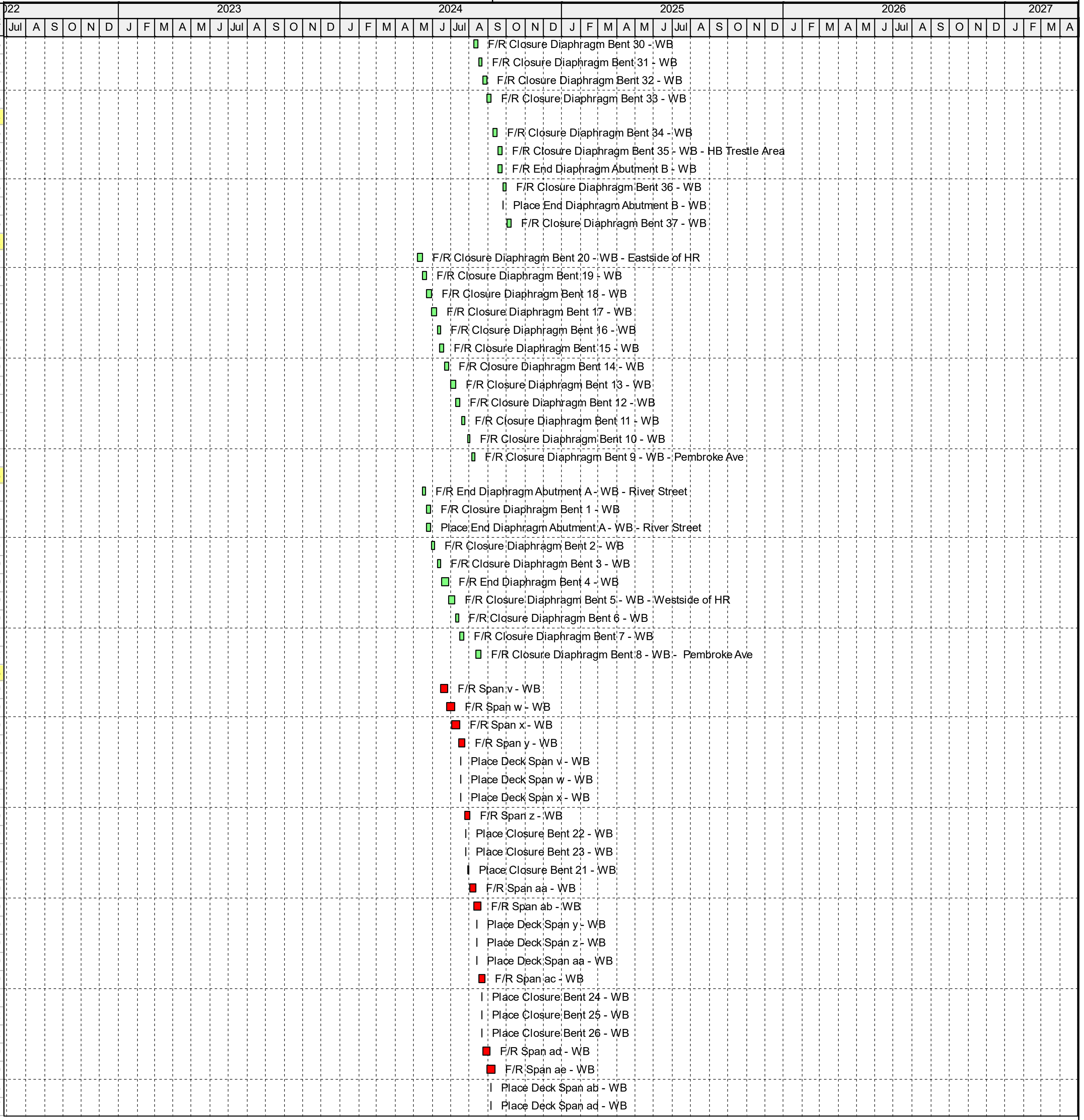
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
1WWGD1000	Erect Span a Girders - WB	1	09-May-24	09-May-24	100
1WWGD1010	Erect Span b Girders - WB	1	17-May-24	17-May-24	102
1WWGD1020	Erect Span c Girders - WB	1	28-May-24	28-May-24	101
1WWGD1030	Erect Span d Girders - WB	1	07-Jun-24	07-Jun-24	99
1WWGD1040	Erect Span e Girders - WB	1	13-Jun-24	13-Jun-24	100
1WWGD1050	Erect Span f Girders - WB	1	24-Jun-24	24-Jun-24	102
1WWGD1060	Erect Span g Girders - WB	1	02-Jul-24	02-Jul-24	101
1WWGD1070	Erect Span h Girders - WB	1	10-Jul-24	10-Jul-24	103
1WWGD1080	Erect Span i Girders - WB	1	26-Jul-24	26-Jul-24	77
Demo Deck Edge Boxwood		**53**	**28-May-24**	**16-Aug-24**	**9**
1WWGD1380	Demo Deck Edge Span v - WB	2	28-May-24	29-May-24	0
1WWGD1390	Demo Deck Edge Span w - WB	2	30-May-24	31-May-24	3
1WWGD1400	Demo Deck Edge Span x - WB	2	03-Jun-24	04-Jun-24	7
1WWGD1410	Demo Deck Edge Span y - WB	2	07-Jun-24	10-Jun-24	10
1WWGD1420	Demo Deck Edge Span z - WB	2	14-Jun-24	17-Jun-24	11
1WWGD1430	Demo Deck Edge Span aa - WB	2	24-Jun-24	25-Jun-24	12
1WWGD1440	Demo Deck EdgeSpan ab - WB	2	03-Jul-24	08-Jul-24	11
1WWGD1450	Demo Deck Edge Span ac - WB	2	10-Jul-24	11-Jul-24	13
1WWGD1460	Demo Deck Edge Span ad - WB	2	22-Jul-24	23-Jul-24	11
1WWGD1470	Demo Deck Edge Span ae - WB	2	30-Jul-24	31-Jul-24	10
1WWGD1480	Demo Deck Edge Span af - WB	2	07-Aug-24	08-Aug-24	9
1WWGD1490	Demo Deck Edge Span ag - WB	2	15-Aug-24	16-Aug-24	9
Demo Deck East Branch Hampton River Bridge		**10**	**22-Aug-24**	**05-Sep-24**	**21**
1WWGD1710	Demo Deck Edge Span ah - WB	2	22-Aug-24	23-Aug-24	9
1WWGD1720	Demo Deck Edge Span ai - WB	2	26-Aug-24	27-Aug-24	12
1WWGD1730	Demo Deck Edge Span aj - WB	2	28-Aug-24	29-Aug-24	15
1WWGD1740	Demo Deck Edge Span ak - WB	2	30-Aug-24	03-Sep-24	18
1WWGD1750	Demo Deck Edge Span al - WB	2	04-Sep-24	05-Sep-24	21
Demo Deck Edge Hampton River		**24**	**01-May-24**	**07-Jun-24**	**102**
1WWGD1500	Demo Deck Edge Span u - WB	2	01-May-24	02-May-24	62
1WWGD1510	Demo Deck Edge Span t - WB	2	03-May-24	06-May-24	62
1WWGD1520	Demo Deck Edge Span s - WB	2	07-May-24	09-May-24	66
1WWGD1530	Demo Deck Edge Span r - WB	2	10-May-24	13-May-24	70
1WWGD1540	Demo Deck Edge Span q - WB	2	15-May-24	16-May-24	74
1WWGD1550	Demo Deck Edge Span p - WB	2	17-May-24	20-May-24	78
1WWGD1560	Demo Deck EdgeSpan o - WB	2	21-May-24	22-May-24	82
1WWGD1570	Demo Deck Edge Span n - WB	2	23-May-24	24-May-24	86
1WWGD1580	Demo Deck Edge Span m - WB	2	28-May-24	29-May-24	90
1WWGD1590	Demo Deck Edge Span l - WB	2	30-May-24	31-May-24	94
1WWGD1600	Demo Deck Edge Span k - WB	2	03-Jun-24	04-Jun-24	98
1WWGD1610	Demo Deck Edge Span j - WB	2	05-Jun-24	07-Jun-24	102
Demo Deck Edge River Street		**18**	**10-May-24**	**07-Jun-24**	**108**
1WWGD1700	Demo Deck Edge Span a - WB	2	10-May-24	13-May-24	100
1WWGD1690	Demo Deck Edge Span b - WB	2	15-May-24	16-May-24	103
1WWGD1680	Demo Deck EdgeSpan c - WB	2	17-May-24	20-May-24	106
1WWGD1670	Demo Deck Edge Span d - WB	2	21-May-24	22-May-24	108
1WWGD1660	Demo Deck Edge Span e - WB	2	23-May-24	24-May-24	108
1WWGD1650	Demo Deck Edge Span f - WB	2	28-May-24	29-May-24	108
1WWGD1640	Demo Deck Edge Span g - WB	2	30-May-24	31-May-24	108
1WWGD1630	Demo Deck Edge Span h - WB	2	03-Jun-24	04-Jun-24	108
1WWGD1620	Demo Deck Edge Span i - WB	2	05-Jun-24	07-Jun-24	108
Diaphragms Boxwood		**65**	**30-May-24**	**06-Sep-24**	**5**
1WWDA1210	F/R Closure Diaphragm Bent 21 - WB	5	30-May-24	05-Jun-24	0
1WWDA1220	F/R Closure Diaphragm Bent 22 - WB	5	07-Jun-24	13-Jun-24	0
1WWDA1230	F/R Closure Diaphragm Bent 23 - WB	5	14-Jun-24	21-Jun-24	1
1WWDA1240	F/R Closure Diaphragm Bent 24 - WB	5	24-Jun-24	28-Jun-24	2
1WWDA1250	F/R Closure Diaphragm Bent 25 - WB	5	01-Jul-24	09-Jul-24	3
1WWDA1260	F/R Closure Diaphragm Bent 26 - WB	5	10-Jul-24	16-Jul-24	4
1WWDA1270	F/R Closure Diaphragm Bent 27 - WB	5	18-Jul-24	24-Jul-24	5
1WWDA1280	F/R Closure Diaphragm Bent 28 - WB	5	25-Jul-24	31-Jul-24	5
1WWDA1290	F/R Closure Diaphragm Bent 29 - WB	5	01-Aug-24	07-Aug-24	5



🟦 Actual Work 🟥 Critical Remaining Work
🟩 Remaining Work ◆ ◆ Milestone

SHIRLEY CONTRACTING COMPANY, LLC BRANCH CIVIL®

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
1WWDA1300	F/R Closure Diaphragm Bent 30 - WB	5	08-Aug-24	15-Aug-24	5
1WWDA1310	F/R Closure Diaphragm Bent 31 - WB	5	16-Aug-24	22-Aug-24	5
1WWDA1320	F/R Closure Diaphragm Bent 32 - WB	5	23-Aug-24	29-Aug-24	5
1WWDA1330	F/R Closure Diaphragm Bent 33 - WB	5	30-Aug-24	06-Sep-24	5
Diaphragms East Branch Hampton River Bridge		**20**	**09-Sep-24**	**08-Oct-24**	**54**
1WWDA1340	F/R Closure Diaphragm Bent 34 - WB	5	09-Sep-24	16-Sep-24	5
1WWDA1350	F/R Closure Diaphragm Bent 35 - WB - HB Trestle Area	5	17-Sep-24	24-Sep-24	5
1WWDA1380	F/R End Diaphragm Abutment B - WB	5	17-Sep-24	24-Sep-24	20
1WWDA1360	F/R Closure Diaphragm Bent 36 - WB	5	25-Sep-24	01-Oct-24	5
1WWDK2160	Place End Diaphragm Abutment B - WB	1	25-Sep-24	25-Sep-24	63
1WWDA1370	F/R Closure Diaphragm Bent 37 - WB	5	02-Oct-24	08-Oct-24	5
Diaphragms Hampton River		**61**	**07-May-24**	**09-Aug-24**	**72**
1WWDA1200	F/R Closure Diaphragm Bent 20 - WB - Eastside of HR	5	07-May-24	15-May-24	62
1WWDA1190	F/R Closure Diaphragm Bent 19 - WB	5	16-May-24	22-May-24	63
1WWDA1180	F/R Closure Diaphragm Bent 18 - WB	5	23-May-24	30-May-24	64
1WWDA1170	F/R Closure Diaphragm Bent 17 - WB	5	31-May-24	07-Jun-24	65
1WWDA1160	F/R Closure Diaphragm Bent 16 - WB	5	10-Jun-24	14-Jun-24	66
1WWDA1150	F/R Closure Diaphragm Bent 15 - WB	5	13-Jun-24	20-Jun-24	69
1WWDA1140	F/R Closure Diaphragm Bent 14 - WB	5	21-Jun-24	27-Jun-24	70
1WWDA1130	F/R Closure Diaphragm Bent 13 - WB	5	01-Jul-24	09-Jul-24	70
1WWDA1120	F/R Closure Diaphragm Bent 12 - WB	5	10-Jul-24	16-Jul-24	71
1WWDA1110	F/R Closure Diaphragm Bent 11 - WB	5	19-Jul-24	25-Jul-24	71
1WWDA1100	F/R Closure Diaphragm Bent 10 - WB	5	29-Jul-24	02-Aug-24	71
1WWDA1090	F/R Closure Diaphragm Bent 9 - WB - Pembroke Ave	5	05-Aug-24	09-Aug-24	72
Diaphragms River Street		**62**	**15-May-24**	**19-Aug-24**	**88**
1WWDA1000	F/R End Diaphragm Abutment A - WB - River Street	5	15-May-24	21-May-24	100
1WWDA1010	F/R Closure Diaphragm Bent 1 - WB	5	22-May-24	29-May-24	100
1WWDK1780	Place End Diaphragm Abutment A - WB - River Street	5	22-May-24	29-May-24	103
1WWDA1020	F/R Closure Diaphragm Bent 2 - WB	5	30-May-24	05-Jun-24	100
1WWDA1030	F/R Closure Diaphragm Bent 3 - WB	5	10-Jun-24	14-Jun-24	99
1WWDA1040	F/R End Diaphragm Bent 4 - WB	8	17-Jun-24	27-Jun-24	99
1WWDA1050	F/R Closure Diaphragm Bent 5 - WB - Westside of HR	5	28-Jun-24	08-Jul-24	99
1WWDA1060	F/R Closure Diaphragm Bent 6 - WB	5	09-Jul-24	15-Jul-24	99
1WWDA1070	F/R Closure Diaphragm Bent 7 - WB	5	16-Jul-24	23-Jul-24	106
1WWDA1080	F/R Closure Diaphragm Bent 8 - WB - Pembroke Ave	5	12-Aug-24	19-Aug-24	82
Decks Boxwood		**91**	**14-Jun-24**	**01-Nov-24**	**45**
1WWDK1210	F/R Span v - WB	8	14-Jun-24	26-Jun-24	0
1WWDK1220	F/R Span w - WB	8	25-Jun-24	08-Jul-24	0
1WWDK1230	F/R Span x - WB	8	03-Jul-24	16-Jul-24	0
1WWDK1240	F/R Span y - WB	8	15-Jul-24	25-Jul-24	0
1WWDK2380	Place Deck Span v - WB	1	18-Jul-24	18-Jul-24	81
1WWDK2390	Place Deck Span w - WB	1	18-Jul-24	18-Jul-24	81
1WWDK2400	Place Deck Span x - WB	1	18-Jul-24	18-Jul-24	47
1WWDK1250	F/R Span z - WB	8	24-Jul-24	02-Aug-24	0
1WWDK2000	Place Closure Bent 22 - WB	1	26-Jul-24	26-Jul-24	109
1WWDK2010	Place Closure Bent 23 - WB	1	26-Jul-24	26-Jul-24	109
1WWDK1990	Place Closure Bent 21 - WB	1	30-Jul-24	30-Jul-24	81
1WWDK1260	F/R Span aa - WB	8	01-Aug-24	12-Aug-24	0
1WWDK1270	F/R Span ab - WB	8	08-Aug-24	20-Aug-24	0
1WWDK2410	Place Deck Span y - WB	1	13-Aug-24	13-Aug-24	30
1WWDK2420	Place Deck Span z - WB	1	13-Aug-24	13-Aug-24	30
1WWDK2430	Place Deck Span aa - WB	1	13-Aug-24	13-Aug-24	30
1WWDK1280	F/R Span ac - WB	8	16-Aug-24	27-Aug-24	0
1WWDK2020	Place Closure Bent 24 - WB	1	21-Aug-24	21-Aug-24	92
1WWDK2030	Place Closure Bent 25 - WB	1	21-Aug-24	21-Aug-24	92
1WWDK2040	Place Closure Bent 26 - WB	1	21-Aug-24	21-Aug-24	92
1WWDK1290	F/R Span ad - WB	8	23-Aug-24	04-Sep-24	0
1WWDK1300	F/R Span ae - WB	8	30-Aug-24	12-Sep-24	0
1WWDK2440	Place Deck Span ab - WB	1	05-Sep-24	05-Sep-24	16
1WWDK2460	Place Deck Span ad - WB	1	05-Sep-24	05-Sep-24	17



🟦 Actual Work
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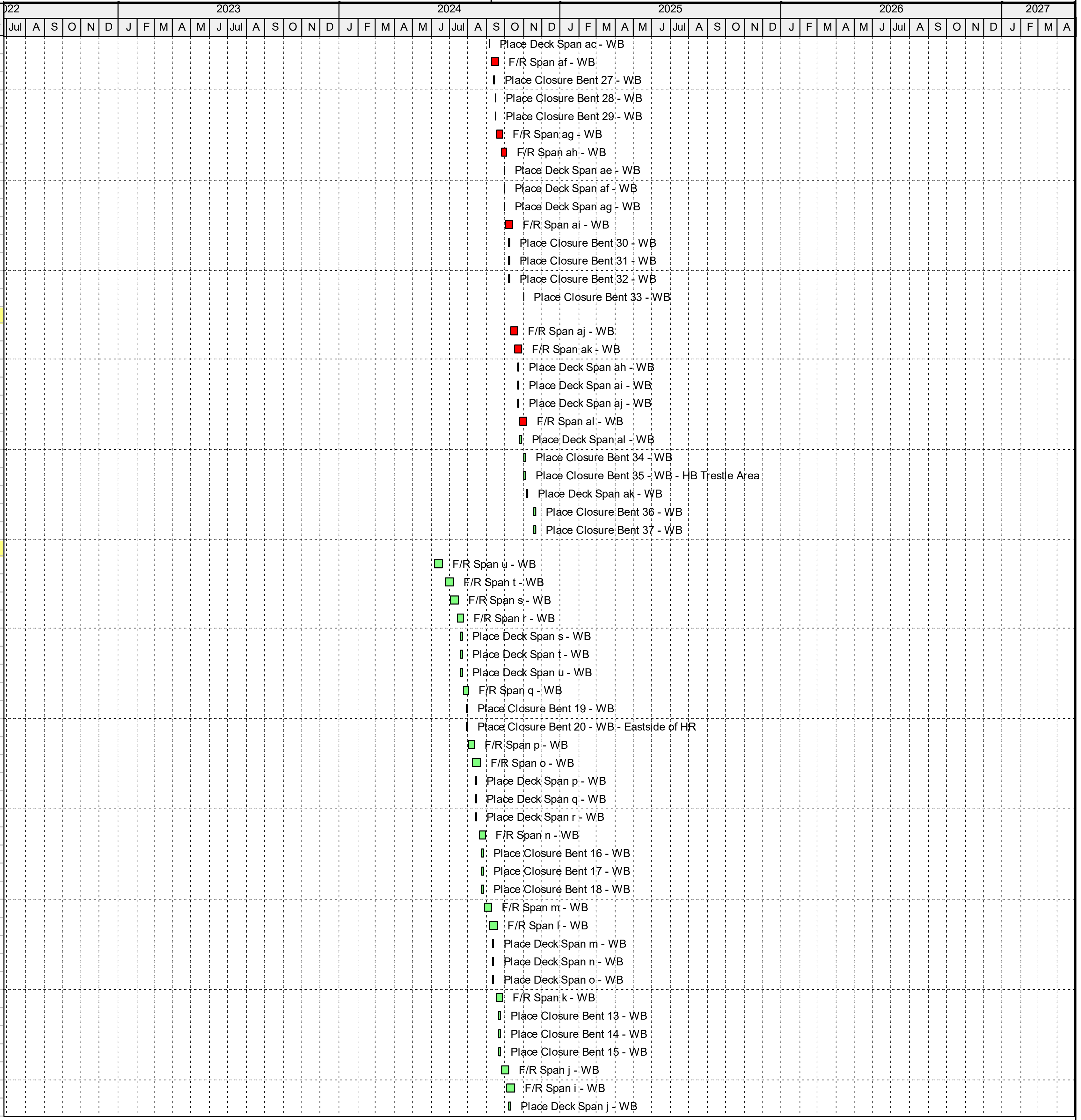
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
1WWDK2450	Place Deck Span ac - WB	1	06-Sep-24	06-Sep-24	16
1WWDK1310	F/R Span af - WB	8	09-Sep-24	20-Sep-24	0
1WWDK2050	Place Closure Bent 27 - WB	1	13-Sep-24	13-Sep-24	77
1WWDK2060	Place Closure Bent 28 - WB	1	16-Sep-24	16-Sep-24	76
1WWDK2070	Place Closure Bent 29 - WB	1	16-Sep-24	16-Sep-24	76
1WWDK1320	F/R Span ag - WB	8	17-Sep-24	27-Sep-24	0
1WWDK1330	F/R Span ah - WB	8	25-Sep-24	04-Oct-24	0
1WWDK2470	Place Deck Span ae - WB	1	30-Sep-24	30-Sep-24	3
1WWDK2480	Place Deck Span af - WB	1	30-Sep-24	30-Sep-24	58
1WWDK2490	Place Deck Span ag - WB	1	30-Sep-24	30-Sep-24	58
1WWDK1340	F/R Span ai - WB	8	02-Oct-24	14-Oct-24	0
1WWDK2080	Place Closure Bent 30 - WB	1	08-Oct-24	08-Oct-24	2
1WWDK2090	Place Closure Bent 31 - WB	1	08-Oct-24	08-Oct-24	61
1WWDK2100	Place Closure Bent 32 - WB	1	08-Oct-24	08-Oct-24	61
1WWDK2110	Place Closure Bent 33 - WB	1	01-Nov-24	01-Nov-24	45
Decks East Branch Hampton River Bridge		**26**	**10-Oct-24**	**20-Nov-24**	**36**
1WWDK1350	F/R Span aj - WB	8	10-Oct-24	21-Oct-24	0
1WWDK1360	F/R Span ak - WB	8	17-Oct-24	29-Oct-24	0
1WWDK2500	Place Deck Span ah - WB	2	22-Oct-24	24-Oct-24	44
1WWDK2510	Place Deck Span ai - WB	2	22-Oct-24	24-Oct-24	44
1WWDK2520	Place Deck Span aj - WB	2	22-Oct-24	24-Oct-24	44
1WWDK1370	F/R Span al - WB	8	25-Oct-24	05-Nov-24	0
1WWDK2540	Place Deck Span al - WB	2	25-Oct-24	28-Oct-24	44
1WWDK2120	Place Closure Bent 34 - WB	2	01-Nov-24	04-Nov-24	45
1WWDK2130	Place Closure Bent 35 - WB - HB Trestle Area	2	01-Nov-24	04-Nov-24	45
1WWDK2530	Place Deck Span ak - WB	2	06-Nov-24	08-Nov-24	36
1WWDK2140	Place Closure Bent 36 - WB	2	18-Nov-24	20-Nov-24	36
1WWDK2150	Place Closure Bent 37 - WB	2	18-Nov-24	20-Nov-24	36
Decks Hampton River		**88**	**07-Jun-24**	**21-Oct-24**	**50**
1WWDK1200	F/R Span u - WB	8	07-Jun-24	19-Jun-24	48
1WWDK1190	F/R Span t - WB	8	25-Jun-24	08-Jul-24	43
1WWDK1180	F/R Span s - WB	8	03-Jul-24	16-Jul-24	43
1WWDK1170	F/R Span r - WB	8	15-Jul-24	25-Jul-24	43
1WWDK2350	Place Deck Span s - WB	2	19-Jul-24	22-Jul-24	81
1WWDK2360	Place Deck Span t - WB	2	19-Jul-24	22-Jul-24	81
1WWDK2370	Place Deck Span u - WB	2	19-Jul-24	22-Jul-24	81
1WWDK1160	F/R Span q - WB	8	24-Jul-24	02-Aug-24	43
1WWDK1970	Place Closure Bent 19 - WB	2	30-Jul-24	31-Jul-24	81
1WWDK1980	Place Closure Bent 20 - WB - Eastside of HR	2	30-Jul-24	31-Jul-24	81
1WWDK1150	F/R Span p - WB	8	01-Aug-24	12-Aug-24	43
1WWDK1140	F/R Span o - WB	8	09-Aug-24	21-Aug-24	43
1WWDK2320	Place Deck Span p - WB	2	13-Aug-24	15-Aug-24	75
1WWDK2330	Place Deck Span q - WB	2	13-Aug-24	15-Aug-24	66
1WWDK2340	Place Deck Span r - WB	2	13-Aug-24	15-Aug-24	66
1WWDK1130	F/R Span n - WB	8	20-Aug-24	29-Aug-24	43
1WWDK1940	Place Closure Bent 16 - WB	2	23-Aug-24	26-Aug-24	76
1WWDK1950	Place Closure Bent 17 - WB	2	23-Aug-24	26-Aug-24	64
1WWDK1960	Place Closure Bent 18 - WB	2	23-Aug-24	26-Aug-24	64
1WWDK1120	F/R Span m - WB	8	28-Aug-24	09-Sep-24	43
1WWDK1110	F/R Span l - WB	8	06-Sep-24	18-Sep-24	43
1WWDK2290	Place Deck Span m - WB	2	10-Sep-24	12-Sep-24	59
1WWDK2300	Place Deck Span n - WB	2	10-Sep-24	12-Sep-24	59
1WWDK2310	Place Deck Span o - WB	2	10-Sep-24	12-Sep-24	59
1WWDK1100	F/R Span k - WB	8	17-Sep-24	27-Sep-24	43
1WWDK1910	Place Closure Bent 13 - WB	2	20-Sep-24	23-Sep-24	59
1WWDK1920	Place Closure Bent 14 - WB	2	20-Sep-24	23-Sep-24	59
1WWDK1930	Place Closure Bent 15 - WB	2	20-Sep-24	23-Sep-24	59
1WWDK1090	F/R Span j - WB	8	26-Sep-24	07-Oct-24	43
1WWDK1080	F/R Span i - WB	8	04-Oct-24	16-Oct-24	52
1WWDK2260	Place Deck Span j - WB	2	08-Oct-24	10-Oct-24	52



🟦 Actual Work
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◆ Milestone

SHIRLEY CONTRACTING COMPANY, LLC
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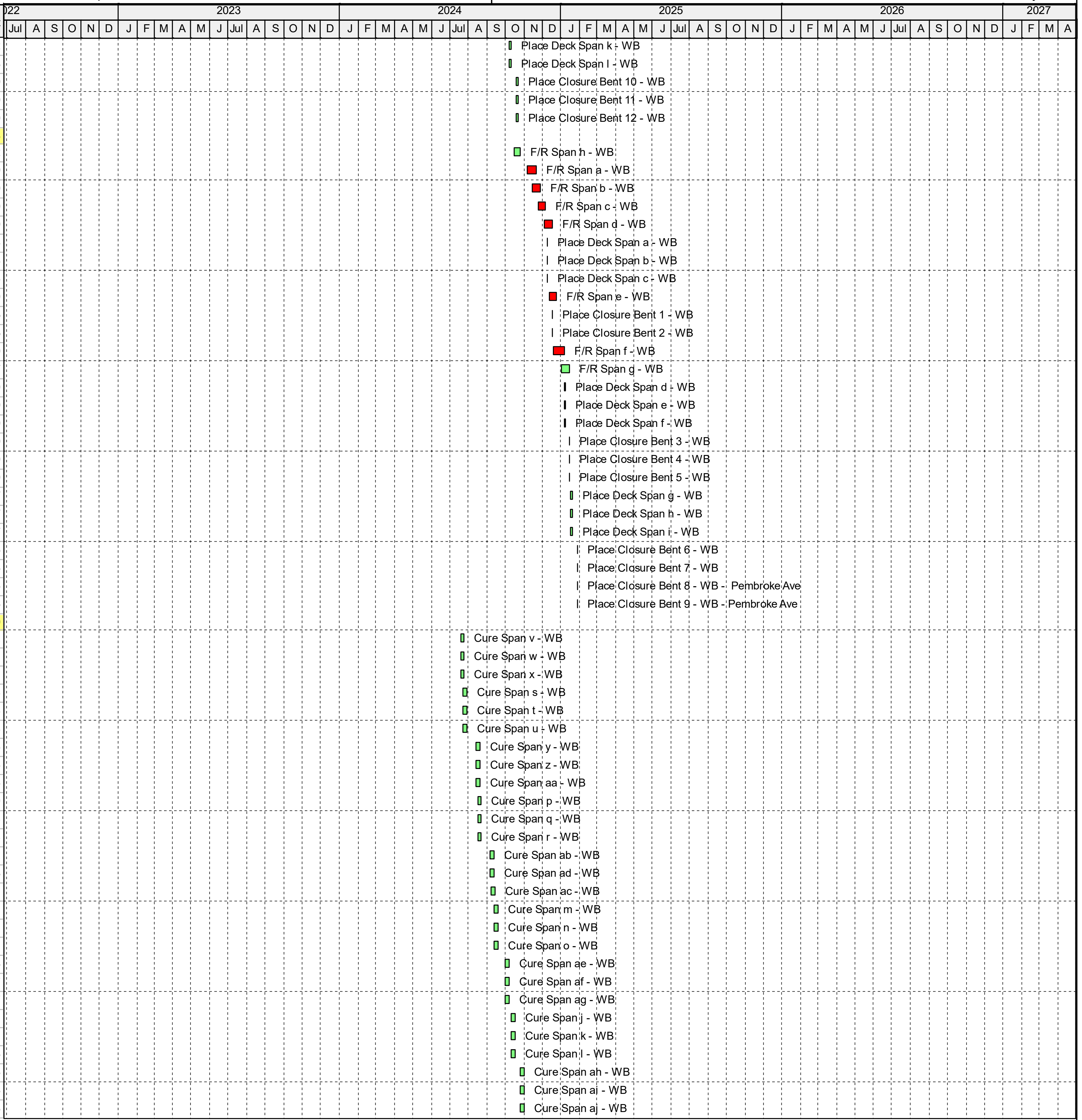
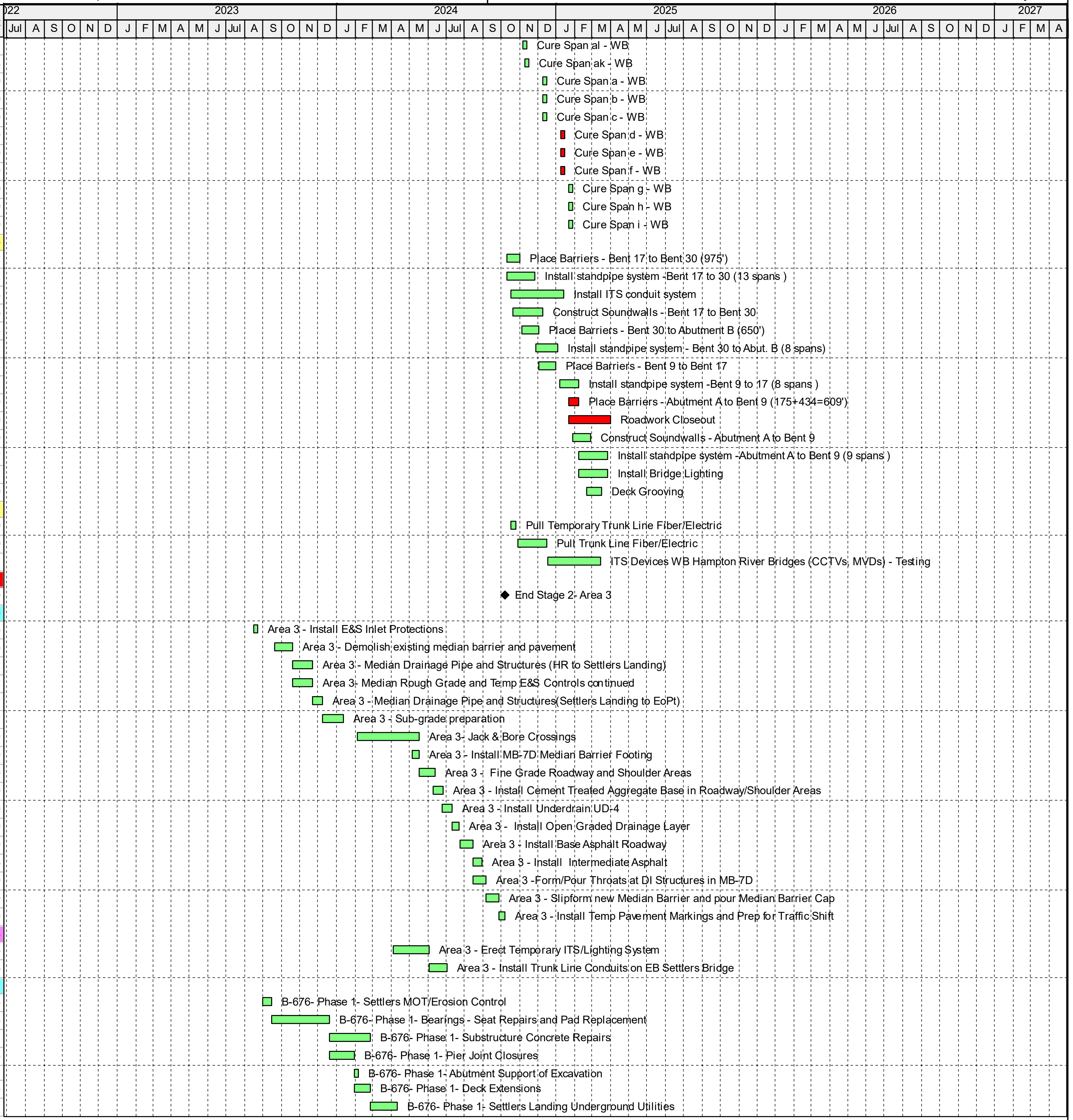
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
1WWDK2270	Place Deck Span k - WB	2	08-Oct-24	10-Oct-24	52
1WWDK2280	Place Deck Span l - WB	2	08-Oct-24	10-Oct-24	43
1WWDK1880	Place Closure Bent 10 - WB	2	18-Oct-24	21-Oct-24	50
1WWDK1890	Place Closure Bent 11 - WB	2	18-Oct-24	21-Oct-24	50
1WWDK1900	Place Closure Bent 12 - WB	2	18-Oct-24	21-Oct-24	40
Decks River Street		61	15-Oct-24	28-Jan-25	6
1WWDK1070	F/R Span h - WB	8	15-Oct-24	25-Oct-24	52
1WWDK1000	F/R Span a - WB	8	06-Nov-24	20-Nov-24	0
1WWDK1010	F/R Span b - WB	8	15-Nov-24	27-Nov-24	0
1WWDK1020	F/R Span c - WB	8	25-Nov-24	06-Dec-24	0
1WWDK1030	F/R Span d - WB	8	04-Dec-24	17-Dec-24	0
1WWDK2170	Place Deck Span a - WB	1	09-Dec-24	09-Dec-24	14
1WWDK2180	Place Deck Span b - WB	1	09-Dec-24	09-Dec-24	14
1WWDK2190	Place Deck Span c - WB	1	09-Dec-24	09-Dec-24	14
1WWDK1040	F/R Span e - WB	8	13-Dec-24	24-Dec-24	0
1WWDK1790	Place Closure Bent 1 - WB	1	17-Dec-24	17-Dec-24	15
1WWDK1800	Place Closure Bent 2 - WB	1	17-Dec-24	17-Dec-24	15
1WWDK1050	F/R Span f - WB	8	20-Dec-24	06-Jan-25	0
1WWDK1060	F/R Span g - WB	8	02-Jan-25	15-Jan-25	7
1WWDK2200	Place Deck Span d - WB	1	07-Jan-25	07-Jan-25	0
1WWDK2210	Place Deck Span e - WB	1	07-Jan-25	07-Jan-25	0
1WWDK2220	Place Deck Span f - WB	1	07-Jan-25	07-Jan-25	0
1WWDK1810	Place Closure Bent 3 - WB	1	15-Jan-25	15-Jan-25	0
1WWDK1820	Place Closure Bent 4 - WB	1	15-Jan-25	15-Jan-25	0
1WWDK1830	Place Closure Bent 5 - WB	1	15-Jan-25	15-Jan-25	0
1WWDK2230	Place Deck Span g - WB	2	17-Jan-25	20-Jan-25	7
1WWDK2240	Place Deck Span h - WB	2	17-Jan-25	20-Jan-25	7
1WWDK2250	Place Deck Span i - WB	2	17-Jan-25	20-Jan-25	7
1WWDK1840	Place Closure Bent 6 - WB	1	28-Jan-25	28-Jan-25	6
1WWDK1850	Place Closure Bent 7 - WB	1	28-Jan-25	28-Jan-25	6
1WWDK1860	Place Closure Bent 8 - WB - Pembroke Ave	1	28-Jan-25	28-Jan-25	6
1WWDK1870	Place Closure Bent 9 - WB - Pembroke Ave	1	28-Jan-25	28-Jan-25	6
Decks Cure		193	19-Jul-24	27-Jan-25	9
1WWDK1590	Cure Span v - WB	7	19-Jul-24	25-Jul-24	132
1WWDK1600	Cure Span w - WB	7	19-Jul-24	25-Jul-24	181
1WWDK1610	Cure Span x - WB	7	19-Jul-24	25-Jul-24	181
1WWDK1560	Cure Span s - WB	7	23-Jul-24	29-Jul-24	128
1WWDK1570	Cure Span t - WB	7	23-Jul-24	29-Jul-24	128
1WWDK1580	Cure Span u - WB	7	23-Jul-24	29-Jul-24	128
1WWDK1620	Cure Span y - WB	7	14-Aug-24	20-Aug-24	155
1WWDK1630	Cure Span z - WB	7	14-Aug-24	20-Aug-24	155
1WWDK1640	Cure Span aa - WB	7	14-Aug-24	20-Aug-24	155
1WWDK1530	Cure Span p - WB	7	16-Aug-24	22-Aug-24	129
1WWDK1540	Cure Span q - WB	7	16-Aug-24	22-Aug-24	104
1WWDK1550	Cure Span r - WB	7	16-Aug-24	22-Aug-24	104
1WWDK1650	Cure Span ab - WB	7	06-Sep-24	12-Sep-24	132
1WWDK1670	Cure Span ad - WB	7	06-Sep-24	12-Sep-24	28
1WWDK1660	Cure Span ac - WB	7	07-Sep-24	13-Sep-24	131
1WWDK1500	Cure Span m - WB	7	13-Sep-24	19-Sep-24	101
1WWDK1510	Cure Span n - WB	7	13-Sep-24	19-Sep-24	101
1WWDK1520	Cure Span o - WB	7	13-Sep-24	19-Sep-24	101
1WWDK1680	Cure Span ae - WB	7	01-Oct-24	07-Oct-24	3
1WWDK1690	Cure Span af - WB	7	01-Oct-24	07-Oct-24	107
1WWDK1700	Cure Span ag - WB	7	01-Oct-24	07-Oct-24	107
1WWDK1470	Cure Span j - WB	7	11-Oct-24	17-Oct-24	91
1WWDK1480	Cure Span k - WB	7	11-Oct-24	17-Oct-24	91
1WWDK1490	Cure Span l - WB	7	11-Oct-24	17-Oct-24	73
1WWDK1710	Cure Span ah - WB	7	25-Oct-24	31-Oct-24	83
1WWDK1720	Cure Span ai - WB	7	25-Oct-24	31-Oct-24	83
1WWDK1730	Cure Span aj - WB	7	25-Oct-24	31-Oct-24	83



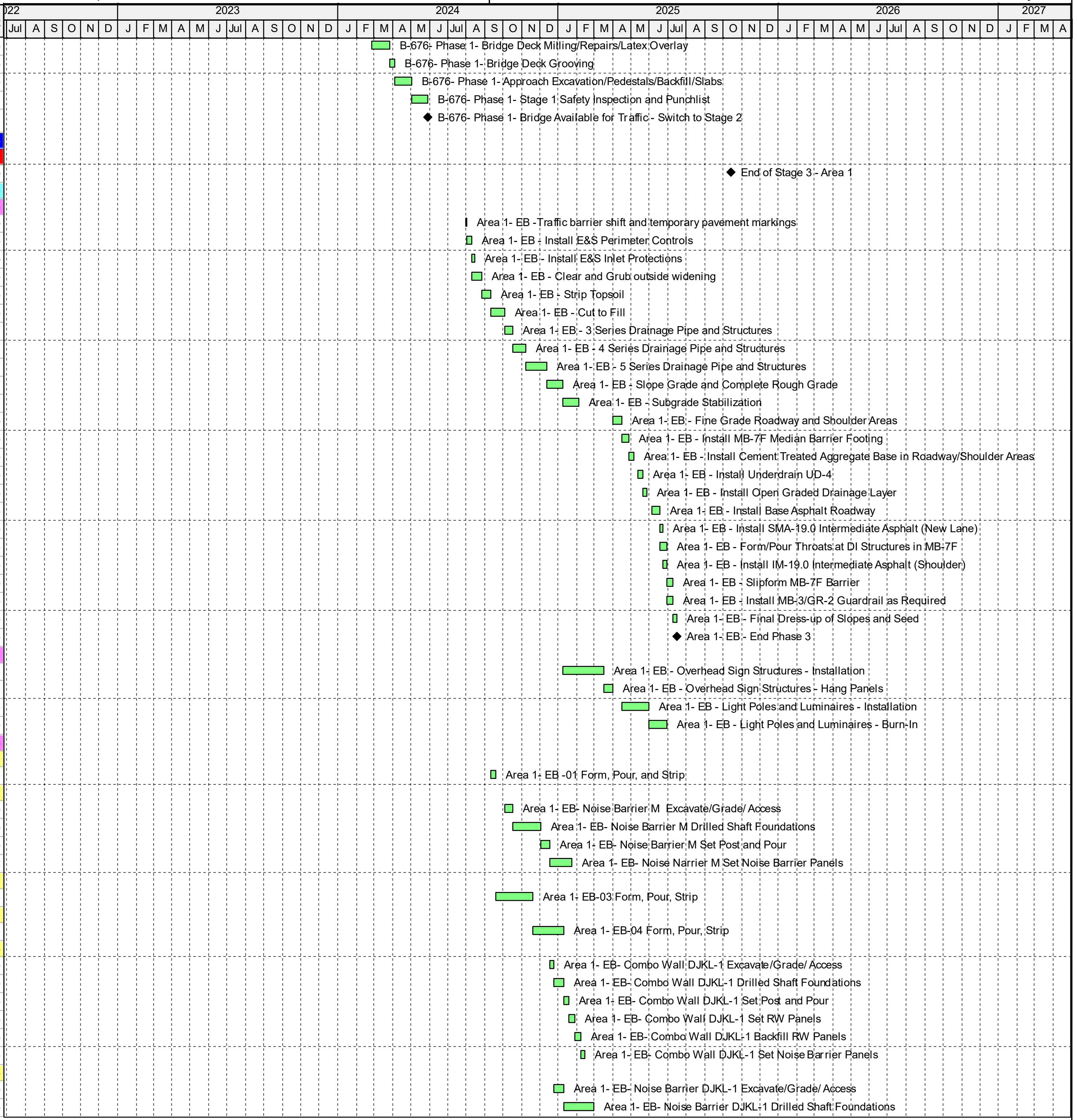
🟦 Actual Work
🟥 Critical Remaining Work
🟩 Remaining Work ◆
◆ Milestone

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
1WWDK1750	Cure Span al - WB	7	06-Nov-24	12-Nov-24	71
1WWDK1740	Cure Span ak - WB	7	09-Nov-24	15-Nov-24	68
1WWDK1380	Cure Span a - WB	7	10-Dec-24	16-Dec-24	29
1WWDK1390	Cure Span b - WB	7	10-Dec-24	16-Dec-24	29
1WWDK1400	Cure Span c - WB	7	10-Dec-24	16-Dec-24	29
1WWDK1410	Cure Span d - WB	7	08-Jan-25	14-Jan-25	0
1WWDK1420	Cure Span e - WB	7	08-Jan-25	14-Jan-25	0
1WWDK1430	Cure Span f - WB	7	08-Jan-25	14-Jan-25	0
1WWDK1440	Cure Span g - WB	7	21-Jan-25	27-Jan-25	9
1WWDK1450	Cure Span h - WB	7	21-Jan-25	27-Jan-25	9
1WWDK1460	Cure Span i - WB	7	21-Jan-25	27-Jan-25	9
Barrier / Soundwall / Grooving / Stripe / Roadwork		102	10-Oct-24	31-Mar-25	0
1WWDK2580	Place Barriers - Bent 17 to Bent 30 (975')	16	10-Oct-24	01-Nov-24	2
1WWDK2640	Install standpipe system -Bent 17 to 30 (13 spans)	30	10-Oct-24	26-Nov-24	2
1WWDK2660	Install ITS conduit system	50	17-Oct-24	13-Jan-25	18
1WWDK2600	Construct Soundwalls - Bent 17 to Bent 30	30	21-Oct-24	09-Dec-24	35
1WWDK2560	Place Barriers - Bent 30 to Abutment B (650')	16	04-Nov-24	02-Dec-24	4
1WWDK2650	Install standpipe system - Bent 30 to Abut. B (8 spans)	20	27-Nov-24	03-Jan-25	2
1WWDK2590	Place Barriers - Bent 9 to Bent 17	16	03-Dec-24	31-Dec-24	4
1WWDK2670	Install standpipe system -Bent 9 to 17 (8 spans)	20	06-Jan-25	06-Feb-25	2
1WWDK1760	Place Barriers - Abutment A to Bent 9 (175+434=609')	12	21-Jan-25	06-Feb-25	0
1WWDK2570	Roadwork Closeout	44	21-Jan-25	31-Mar-25	0
1WWDK1770	Construct Soundwalls - Abutment A to Bent 9	20	28-Jan-25	27-Feb-25	9
1WWDK2680	Install standpipe system -Abutment A to Bent 9 (9 spans)	30	07-Feb-25	27-Mar-25	2
1WWDK2690	Install Bridge Lighting	30	07-Feb-25	27-Mar-25	2
1WWDK2550	Deck Grooving	15	21-Feb-25	17-Mar-25	9
ITS devices WB- Hampton River Bridges		90	17-Oct-24	16-Mar-25	22
ITSW-1000	Pull Temporary Trunk Line Fiber/Electric	7	17-Oct-24	25-Oct-24	19
ITSW-1010	Pull Trunk Line Fiber/Electric	30	28-Oct-24	16-Dec-24	19
ITSW-1020	ITS Devices WB Hampton River Bridges (CCTVs, MVDs) - Testing	90	17-Dec-24	16-Mar-25	31
Area 3 - 748+22 TO 785+72 (3,750 LF)		272	15-Aug-23	07-Oct-24	130
CON2-A3-1540	End Stage 2- Area 3	0		07-Oct-24	0
Area 3- Roadway		272	15-Aug-23	07-Oct-24	0
CON2-A3-1000	Area 3 - Install E&S Inlet Protections	5	15-Aug-23	22-Aug-23	85
CON2-A3-1030	Area 3 - Demolish existing median barrier and pavement	20	20-Sep-23	19-Oct-23	65
CON2-A3-1040	Area 3 - Median Drainage Pipe and Structures (HR to Settlers Landing)	20	19-Oct-23	21-Nov-23	72
CON2-A3-1050	Area 3- Median Rough Grade and Temp E&S Controls continued	20	19-Oct-23	21-Nov-23	82
CON2-A3-1060	Area 3 - Median Drainage Pipe and Structures(Settlers Landing to EoPt)	10	21-Nov-23	08-Dec-23	72
CON2-A3-1070	Area 3 - Sub-grade preparation	20	08-Dec-23	12-Jan-24	72
CON2-A3-1120	Area 3- Jack & Bore Crossings	65	05-Feb-24	17-May-24	0
CON2-A3-1190	Area 3 - Install MB-7D Median Barrier Footing	8	06-May-24	17-May-24	0
CON2-A3-1200	Area 3 - Fine Grade Roadway and Shoulder Areas	17	17-May-24	12-Jun-24	0
CON2-A3-1230	Area 3 - Install Cement Treated Aggregate Base in Roadway/Shoulder Are	12	10-Jun-24	26-Jun-24	0
CON2-A3-1240	Area 3 - Install Underdrain UD-4	12	24-Jun-24	11-Jul-24	0
CON2-A3-1250	Area 3 - Install Open Graded Drainage Layer	8	11-Jul-24	23-Jul-24	0
CON2-A3-1260	Area 3 - Install Base Asphalt Roadway	15	25-Jul-24	15-Aug-24	0
CON2-A3-1270	Area 3 - Install Intermediate Asphalt	10	15-Aug-24	29-Aug-24	5
CON2-A3-1280	Area 3 -Form/Pour Throats at DI Structures in MB-7D	15	15-Aug-24	06-Sep-24	0
CON2-A3-1290	Area 3 - Slipform new Median Barrier and pour Median Barrier Cap	15	06-Sep-24	27-Sep-24	0
CON2-A3-1300	Area 3 - Install Temp Pavement Markings and Prep for Traffic Shift	5	27-Sep-24	07-Oct-24	0
Area 3- ITS, Signage & Ligthing		61	04-Apr-24	03-Jul-24	65
CON2-A3-1170	Area 3 - Erect Temporary ITS/Lighting System	39	04-Apr-24	03-Jun-24	65
CON2-A3-1220	Area 3 - Install Trunk Line Conduits on EB Settlers Bridge	22	03-Jun-24	03-Jul-24	65
B-676- I-64 EBL/WBL over Settlers Landing Road - Phase 1		170	30-Aug-23	28-May-24	221
CON2-A3-1010	B-676- Phase 1- Settlers MOT/Erosion Control	10	30-Aug-23	14-Sep-23	86
CON2-A3-1020	B-676- Phase 1- Bearings - Seat Repairs and Pad Replacement	60	14-Sep-23	19-Dec-23	86
CON2-A3-1080	B-676- Phase 1- Substructure Concrete Repairs	40	19-Dec-23	26-Feb-24	251
CON2-A3-1090	B-676- Phase 1- Pier Joint Closures	25	19-Dec-23	30-Jan-24	86
CON2-A3-1100	B-676- Phase 1- Abutment Support of Excavation	5	30-Jan-24	06-Feb-24	121
CON2-A3-1110	B-676- Phase 1- Deck Extensions	15	30-Jan-24	26-Feb-24	86
CON2-A3-1130	B-676- Phase 1- Settlers Landing Underground Utilities	30	26-Feb-24	11-Apr-24	251



🟦 Actual Work	🟥 Critical Remaining Work
🟩 Remaining Work ◆	◆ Milestone

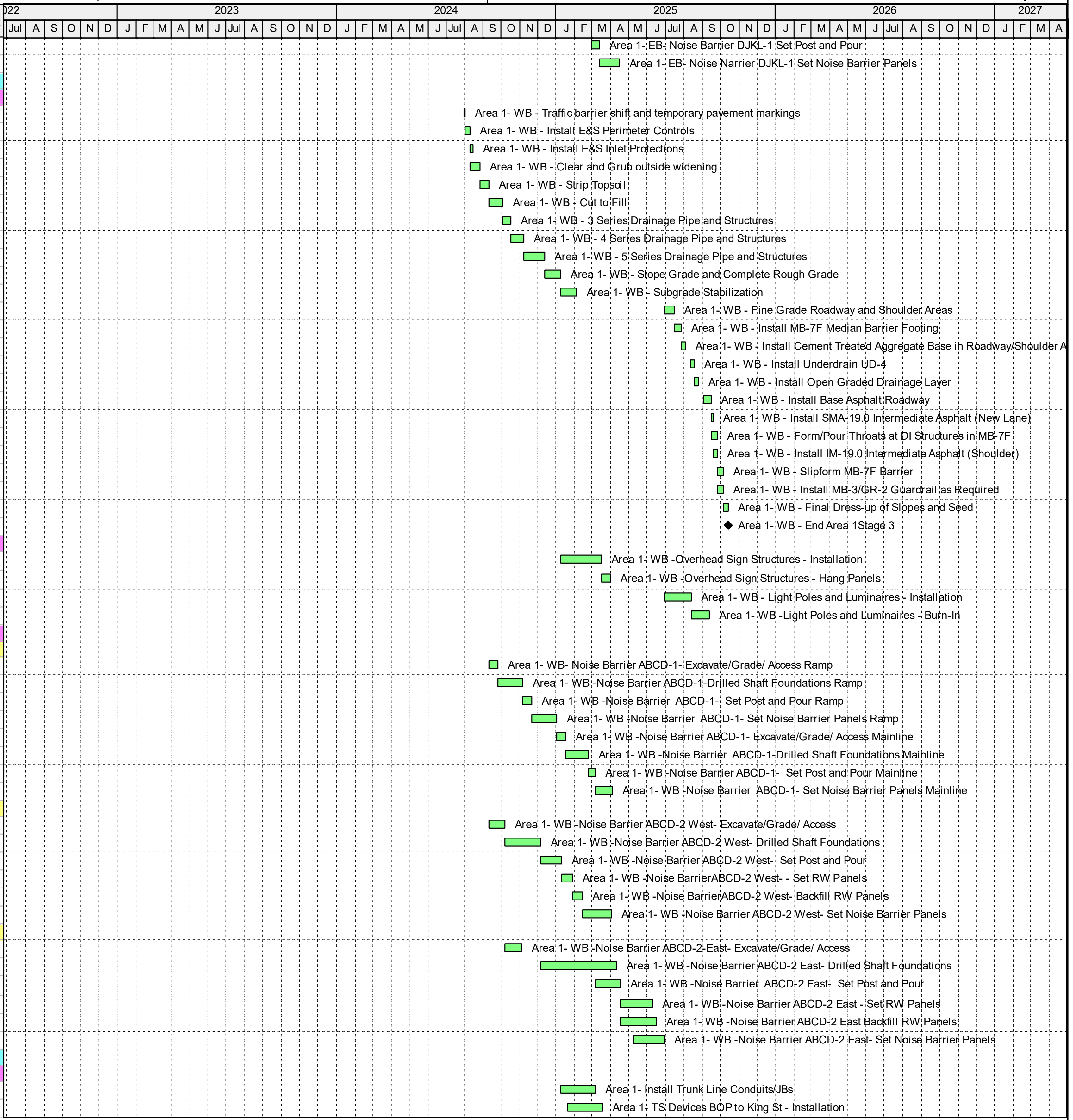
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
CON2-A3-1140	B-676- Phase 1- Bridge Deck Milling/Repairs/Latex Overlay	20	26-Feb-24	27-Mar-24	86
CON2-A3-1150	B-676- Phase 1- Bridge Deck Grooving	5	27-Mar-24	04-Apr-24	86
CON2-A3-1160	B-676- Phase 1- Approach Excavation/Pedestals/Backfill/Slabs	20	04-Apr-24	03-May-24	86
CON2-A3-1180	B-676- Phase 1- Stage 1 Safety Inspection and Punchlist	15	03-May-24	28-May-24	91
CON2-A3-1210	B-676- Phase 1- Bridge Available for Traffic - Switch to Stage 2	0		28-May-24	91
Stage 3 - I-64 outside Widening / Noisewalls & 2nd Phase of Bridges		536	31-Jul-24	29-Oct-26	35
Area 1 - Sta. 658+73 to Sta. 721+13 (6,240 LF)		287	31-Jul-24	13-Oct-25	254
CON3-A1-3000	End of Stage 3 - Area 1	0		13-Oct-25	5
Area 1- Eastbound- Roadway		226	31-Jul-24	16-Jul-25	315
Roadway		226	31-Jul-24	16-Jul-25	66
CON3-A1-1030	Area 1- EB -Traffic barrier shift and temporary pavement markings	2	31-Jul-24	02-Aug-24	5
CON3-A1-1050	Area 1- EB - Install E&S Perimeter Controls	5	02-Aug-24	09-Aug-24	66
CON3-A1-1090	Area 1- EB - Install E&S Inlet Protections	3	09-Aug-24	14-Aug-24	75
CON3-A1-1100	Area 1- EB - Clear and Grub outside widening	12	09-Aug-24	27-Aug-24	66
CON3-A1-1190	Area 1- EB - Strip Topsoil	10	27-Aug-24	11-Sep-24	66
CON3-A1-1240	Area 1- EB - Cut to Fill	15	11-Sep-24	03-Oct-24	66
CON3-A1-1370	Area 1- EB - 3 Series Drainage Pipe and Structures	10	03-Oct-24	17-Oct-24	117
CON3-A1-1450	Area 1- EB - 4 Series Drainage Pipe and Structures	15	17-Oct-24	08-Nov-24	117
CON3-A1-1510	Area 1- EB - 5 Series Drainage Pipe and Structures	20	08-Nov-24	13-Dec-24	117
CON3-A1-1660	Area 1- EB - Slope Grade and Complete Rough Grade	15	13-Dec-24	07-Jan-25	117
CON3-A1-1770	Area 1- EB - Subgrade Stabilization	17	07-Jan-25	04-Feb-25	117
CON3-A1-2160	Area 1- EB - Fine Grade Roadway and Shoulder Areas	10	01-Apr-25	16-Apr-25	66
CON3-A1-2180	Area 1- EB - Install MB-7F Median Barrier Footing	8	16-Apr-25	28-Apr-25	66
CON3-A1-2240	Area 1- EB - Install Cement Treated Aggregate Base in Roadway/Shoulder	5	28-Apr-25	05-May-25	66
CON3-A1-2270	Area 1- EB - Install Underdrain UD-4	5	13-May-25	20-May-25	66
CON3-A1-2290	Area 1- EB - Install Open Graded Drainage Layer	5	20-May-25	28-May-25	66
CON3-A1-2310	Area 1- EB - Install Base Asphalt Roadway	10	04-Jun-25	18-Jun-25	66
CON3-A1-2330	Area 1- EB - Install SMA-19.0 Intermediate Asphalt (New Lane)	3	18-Jun-25	23-Jun-25	66
CON3-A1-2340	Area 1- EB - Form/Pour Throats at DI Structures in MB-7F	8	18-Jun-25	30-Jun-25	66
CON3-A1-2350	Area 1- EB - Install IM-19.0 Intermediate Asphalt (Shoulder)	5	23-Jun-25	30-Jun-25	66
CON3-A1-2360	Area 1- EB - Slipform MB-7F Barrier	5	30-Jun-25	09-Jul-25	66
CON3-A1-2370	Area 1- EB - Install MB-3/GR-2 Guardrail as Required	5	30-Jun-25	09-Jul-25	66
CON3-A1-2400	Area 1- EB - Final Dress-up of Slopes and Seed	5	09-Jul-25	16-Jul-25	66
CON3-A1-2410	Area 1- EB - End Phase 3	0		16-Jul-25	66
Signage & Lighting		111	07-Jan-25	29-Jun-25	326
CON3-A1-1800	Area 1- EB - Overhead Sign Structures - Installation	40	07-Jan-25	17-Mar-25	138
CON3-A1-2110	Area 1- EB - Overhead Sign Structures - Hang Panels	10	17-Mar-25	31-Mar-25	138
CON3-A1-2190	Area 1- EB - Light Poles and Luminaires - Installation	30	16-Apr-25	30-May-25	325
CON3-A1-2300	Area 1- EB - Light Poles and Luminaires - Burn-In	30	31-May-25	29-Jun-25	495
Retaining Wall and Noise Barrier Construction		136	11-Sep-24	16-Apr-25	66
Retaining Wall EB-01 (RW-3)		6	11-Sep-24	19-Sep-24	126
CON3-A1-1260	Area 1- EB -01 Form, Pour, and Strip	6	11-Sep-24	19-Sep-24	126
Ground Mounted Noise Barrier "M"		69	03-Oct-24	23-Jan-25	92
CON3-A1-1390	Area 1- EB- Noise Barrier M Excavate/Grade/ Access	10	03-Oct-24	17-Oct-24	66
CON3-A1-1470	Area 1- EB- Noise Barrier M Drilled Shaft Foundations	28	17-Oct-24	02-Dec-24	66
CON3-A1-1590	Area 1- EB- Noise Barrier M Set Post and Pour	9	02-Dec-24	17-Dec-24	66
CON3-A1-1690	Area 1- EB- Noise Narrier M Set Noise Barrier Panels	22	17-Dec-24	23-Jan-25	92
Retaining Wall EB-03 (RW-3)		40	19-Sep-24	19-Nov-24	126
CON3-A1-1320	Area 1- EB-03 Form, Pour, Strip	40	19-Sep-24	19-Nov-24	126
Retaining Wall EB-04 (RW-3)		30	19-Nov-24	09-Jan-25	126
CON3-A1-1570	Area 1- EB-04 Form, Pour, Strip	30	19-Nov-24	09-Jan-25	126
Combo RW/Noise Barrier DJKL-1		35	17-Dec-24	13-Feb-25	83
CON3-A1-1700	Area 1- EB- Combo Wall DJKL-1 Excavate/Grade/ Access	5	17-Dec-24	24-Dec-24	66
CON3-A1-1720	Area 1- EB- Combo Wall DJKL-1 Drilled Shaft Foundations	10	24-Dec-24	10-Jan-25	66
CON3-A1-1860	Area 1- EB- Combo Wall DJKL-1 Set Post and Pour	4	10-Jan-25	17-Jan-25	83
CON3-A1-1890	Area 1- EB- Combo Wall DJKL-1 Set RW Panels	5	17-Jan-25	27-Jan-25	83
CON3-A1-1930	Area 1- EB- Combo Wall DJKL-1 Backfill RW Panels	7	27-Jan-25	06-Feb-25	83
CON3-A1-1970	Area 1- EB- Combo Wall DJKL-1 Set Noise Barrier Panels	4	06-Feb-25	13-Feb-25	83
Ground Mounted Noise Barrier DJKL-1		69	24-Dec-24	16-Apr-25	66
CON3-A1-1710	Area 1- EB- Noise Barrier DJKL-1 Excavate/Grade/ Access	10	24-Dec-24	10-Jan-25	66
CON3-A1-1850	Area 1- EB- Noise Barrier DJKL-1 Drilled Shaft Foundations	28	10-Jan-25	28-Feb-25	66



🟦	Actual Work	🟥	Critical Remaining Work
🟩	Remaining Work	◆	Milestone

SHIRLEY CONTRACTING COMPANY, LLC
BRANCH CIVIL®

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
CON3-A1-2030	Area 1- EB- Noise Barrier DJKL-1 Set Post and Pour	9	28-Feb-25	14-Mar-25	66
CON3-A1-2090	Area 1- EB- Noise Narrier DJKL-1 Set Noise Barrier Panels	22	14-Mar-25	16-Apr-25	66
Area 1 - Westbound - Roadway		287	31-Jul-24	13-Oct-25	254
Roadway		287	31-Jul-24	13-Oct-25	5
CON3-A1-1040	Area 1- WB - Traffic barrier shift and temporary pavement markings	2	31-Jul-24	02-Aug-24	5
CON3-A1-1060	Area 1- WB - Install E&S Perimeter Controls	5	02-Aug-24	09-Aug-24	5
CON3-A1-1110	Area 1- WB - Install E&S Inlet Protections	3	09-Aug-24	14-Aug-24	14
CON3-A1-1120	Area 1- WB - Clear and Grub outside widening	12	09-Aug-24	27-Aug-24	5
CON3-A1-1200	Area 1- WB - Strip Topsoil	10	27-Aug-24	11-Sep-24	5
CON3-A1-1250	Area 1- WB - Cut to Fill	15	11-Sep-24	03-Oct-24	5
CON3-A1-1380	Area 1- WB - 3 Series Drainage Pipe and Structures	10	03-Oct-24	17-Oct-24	117
CON3-A1-1460	Area 1- WB - 4 Series Drainage Pipe and Structures	15	17-Oct-24	08-Nov-24	117
CON3-A1-1520	Area 1- WB - 5 Series Drainage Pipe and Structures	20	08-Nov-24	13-Dec-24	117
CON3-A1-1670	Area 1- WB - Slope Grade and Complete Rough Grade	15	13-Dec-24	07-Jan-25	117
CON3-A1-1790	Area 1- WB - Subgrade Stabilization	17	07-Jan-25	04-Feb-25	117
CON3-A1-2390	Area 1- WB - Fine Grade Roadway and Shoulder Areas	10	30-Jun-25	16-Jul-25	5
CON3-A1-2420	Area 1- WB - Install MB-7F Median Barrier Footing	8	16-Jul-25	28-Jul-25	5
CON3-A1-2430	Area 1- WB - Install Cement Treated Aggregate Base in Roadway/Shoulde	5	28-Jul-25	04-Aug-25	5
CON3-A1-2440	Area 1- WB - Install Underdrain UD-4	5	11-Aug-25	18-Aug-25	5
CON3-A1-2460	Area 1- WB - Install Open Graded Drainage Layer	5	18-Aug-25	25-Aug-25	5
CON3-A1-2470	Area 1- WB - Install Base Asphalt Roadway	10	02-Sep-25	16-Sep-25	5
CON3-A1-2480	Area 1- WB - Install SMA-19.0 Intermediate Asphalt (New Lane)	3	16-Sep-25	19-Sep-25	5
CON3-A1-2490	Area 1- WB - Form/Pour Throats at DI Structures in MB-7F	8	16-Sep-25	26-Sep-25	5
CON3-A1-2500	Area 1- WB - Install IM-19.0 Intermediate Asphalt (Shoulder)	5	19-Sep-25	26-Sep-25	5
CON3-A1-2510	Area 1- WB - Slipform MB-7F Barrier	5	26-Sep-25	06-Oct-25	5
CON3-A1-2520	Area 1- WB - Install MB-3/GR-2 Guardrail as Required	5	26-Sep-25	06-Oct-25	5
CON3-A1-2530	Area 1- WB - Final Dress-up of Slopes and Seed	5	06-Oct-25	13-Oct-25	5
CON3-A1-2540	Area 1- WB - End Area 1Stage 3	0		13-Oct-25	5
Signage & Lighting		163	07-Jan-25	12-Sep-25	274
CON3-A1-1780	Area 1- WB -Overhead Sign Structures - Installation	40	07-Jan-25	17-Mar-25	138
CON3-A1-2100	Area 1- WB -Overhead Sign Structures - Hang Panels	10	17-Mar-25	31-Mar-25	138
CON3-A1-2380	Area 1- WB - Light Poles and Luminaires - Installation	30	30-Jun-25	13-Aug-25	274
CON3-A1-2450	Area 1- WB -Light Poles and Luminaires - Burn-In	30	14-Aug-25	12-Sep-25	420
Retaining Wall and Noise Barrier Construction		187	11-Sep-24	30-Jun-25	250
Ground Mounted Noise Barrier ABCD-1		128	11-Sep-24	04-Apr-25	309
CON3-A1-1270	Area 1- WB- Noise Barrier ABCD-1- Excavate/Grade/ Access Ramp	10	11-Sep-24	25-Sep-24	5
CON3-A1-1340	Area 1- WB -Noise Barrier ABCD-1-Drilled Shaft Foundations Ramp	28	25-Sep-24	05-Nov-24	309
CON3-A1-1500	Area 1- WB -Noise Barrier ABCD-1- Set Post and Pour Ramp	9	05-Nov-24	20-Nov-24	309
CON3-A1-1580	Area 1- WB -Noise Barrier ABCD-1- Set Noise Barrier Panels Ramp	25	20-Nov-24	02-Jan-25	309
CON3-A1-1750	Area 1- WB -Noise Barrier ABCD-1- Excavate/Grade/ Access Mainline	8	02-Jan-25	16-Jan-25	309
CON3-A1-1880	Area 1- WB -Noise Barrier ABCD-1-Drilled Shaft Foundations Mainline	22	16-Jan-25	24-Feb-25	309
CON3-A1-2010	Area 1- WB -Noise Barrier ABCD-1- Set Post and Pour Mainline	7	24-Feb-25	07-Mar-25	309
CON3-A1-2040	Area 1- WB -Noise Barrier ABCD-1- Set Noise Barrier Panels Mainline	19	07-Mar-25	04-Apr-25	309
Ground Mounted and Combo RW/Noise Barrier ABCD-2- West		127	11-Sep-24	03-Apr-25	310
CON3-A1-1280	Area 1- WB -Noise Barrier ABCD-2 West- Excavate/Grade/ Access	17	11-Sep-24	07-Oct-24	5
CON3-A1-1410	Area 1- WB -Noise Barrier ABCD-2 West- Drilled Shaft Foundations	39	07-Oct-24	06-Dec-24	5
CON3-A1-1630	Area 1- WB -Noise Barrier ABCD-2 West- Set Post and Pour	21	06-Dec-24	10-Jan-25	310
CON3-A1-1870	Area 1- WB -Noise BarrierABCD-2 West- - Set RW Panels	9	10-Jan-25	27-Jan-25	310
CON3-A1-1940	Area 1- WB -Noise BarrierABCD-2 West- Backfill RW Panels	12	27-Jan-25	14-Feb-25	310
CON3-A1-1990	Area 1- WB -Noise Barrier ABCD-2 West- Set Noise Barrier Panels	29	14-Feb-25	03-Apr-25	310
Combo RW/Noise Barrier ABCD-2- East		170	07-Oct-24	30-Jun-25	5
CON3-A1-1420	Area 1- WB -Noise Barrier ABCD-2-East- Excavate/Grade/ Access	20	07-Oct-24	04-Nov-24	24
CON3-A1-1640	Area 1- WB -Noise Barrier ABCD-2 East- Drilled Shaft Foundations	76	06-Dec-24	10-Apr-25	5
CON3-A1-2050	Area 1- WB -Noise Barrier ABCD-2 East- Set Post and Pour	28	07-Mar-25	17-Apr-25	5
CON3-A1-2200	Area 1- WB -Noise Barrier ABCD-2 East - Set RW Panels	35	17-Apr-25	09-Jun-25	5
CON3-A1-2210	Area 1- WB -Noise Barrier ABCD-2 East Backfill RW Panels	40	17-Apr-25	16-Jun-25	5
CON3-A1-2250	Area 1- WB -Noise Barrier ABCD-2 East- Set Noise Barrier Panels	35	09-May-25	30-Jun-25	5
Area 1- ITS		110	07-Jan-25	26-Jun-25	327
Area 1- ITS to King Street		110	07-Jan-25	26-Jun-25	327
CON3-A1-1830	Area 1- Install Trunk Line Conduits/JBs	34	07-Jan-25	07-Mar-25	326
CON3-A1-1820	Area 1- TS Devices BOP to King St - Installation	35	20-Jan-25	18-Mar-25	334



🟦 Actual Work 🟥 Critical Remaining Work

🟩 Remaining Work ◆ ◆ Milestone

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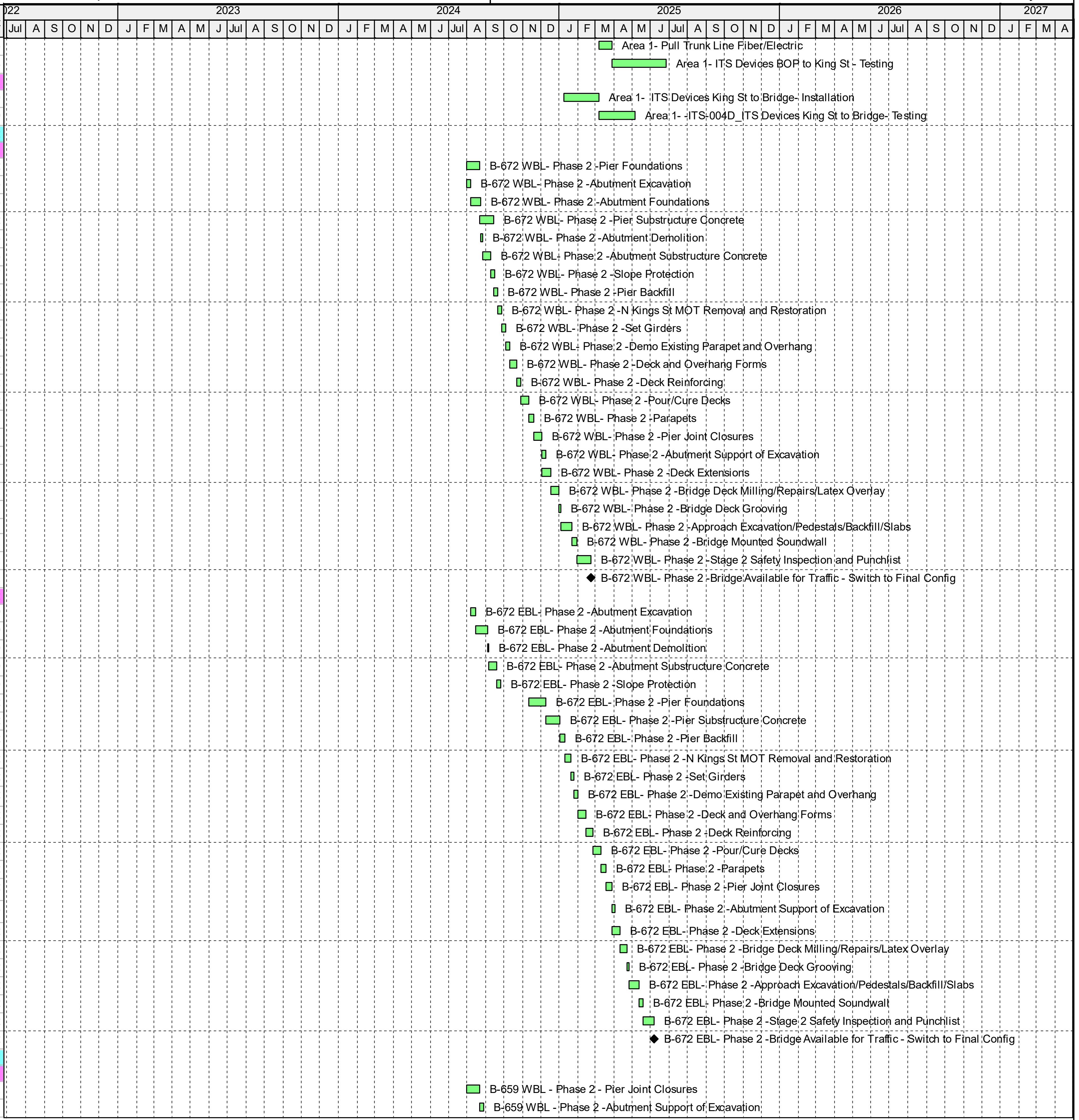
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
CON3-A1-2070	Area 1- Pull Trunk Line Fiber/Electric	15	07-Mar-25	28-Mar-25	326
CON3-A1-2150	Area 1- ITS Devices BOP to King St - Testing	90	29-Mar-25	26-Jun-25	498
Area 1- ITS from King Street to Hampton River Bridge		**75**	**07-Jan-25**	**06-May-25**	**362**
CON3-A1-1810	Area 1- ITS Devices King St to Bridge- Installation	34	07-Jan-25	07-Mar-25	360
CON3-A1-2060	Area 1- -ITS-004D_ITS Devices King St to Bridge- Testing	60	08-Mar-25	06-May-25	549
B-672 - I-64 EBL/WBL over King Street - Phase 2		**200**	**31-Jul-24**	**06-Jun-25**	**92**
B-672- I-64 WBL over King Street		**130**	**31-Jul-24**	**21-Feb-25**	**162**
CON3-A1-1010	B-672 WBL- Phase 2 -Pier Foundations	16	31-Jul-24	22-Aug-24	92
CON3-A1-1020	B-672 WBL- Phase 2 -Abutment Excavation	5	31-Jul-24	07-Aug-24	106
CON3-A1-1070	B-672 WBL- Phase 2 -Abutment Foundations	12	07-Aug-24	23-Aug-24	106
CON3-A1-1160	B-672 WBL- Phase 2 -Pier Substructure Concrete	15	22-Aug-24	13-Sep-24	92
CON3-A1-1170	B-672 WBL- Phase 2 -Abutment Demolition	2	23-Aug-24	27-Aug-24	106
CON3-A1-1180	B-672 WBL- Phase 2 -Abutment Substructure Concrete	8	27-Aug-24	09-Sep-24	106
CON3-A1-1230	B-672 WBL- Phase 2 -Slope Protection	5	09-Sep-24	16-Sep-24	247
CON3-A1-1300	B-672 WBL- Phase 2 -Pier Backfill	5	13-Sep-24	20-Sep-24	92
CON3-A1-1330	B-672 WBL- Phase 2 -N Kings St MOT Removal and Restoration	5	20-Sep-24	27-Sep-24	92
CON3-A1-1350	B-672 WBL- Phase 2 -Set Girders	3	27-Sep-24	03-Oct-24	92
CON3-A1-1360	B-672 WBL- Phase 2 -Demo Existing Parapet and Overhang	5	03-Oct-24	10-Oct-24	92
CON3-A1-1430	B-672 WBL- Phase 2 -Deck and Overhang Forms	8	10-Oct-24	22-Oct-24	92
CON3-A1-1480	B-672 WBL- Phase 2 -Deck Reinforcing	5	22-Oct-24	29-Oct-24	92
CON3-A1-1490	B-672 WBL- Phase 2 -Pour/Cure Decks	8	29-Oct-24	11-Nov-24	92
CON3-A1-1540	B-672 WBL- Phase 2 -Parapets	5	11-Nov-24	19-Nov-24	162
CON3-A1-1560	B-672 WBL- Phase 2 -Pier Joint Closures	8	19-Nov-24	03-Dec-24	162
CON3-A1-1600	B-672 WBL- Phase 2 -Abutment Support of Excavation	3	03-Dec-24	09-Dec-24	178
CON3-A1-1610	B-672 WBL- Phase 2 -Deck Extensions	8	03-Dec-24	17-Dec-24	162
CON3-A1-1680	B-672 WBL- Phase 2 -Bridge Deck Milling/Repairs/Latex Overlay	8	17-Dec-24	30-Dec-24	162
CON3-A1-1730	B-672 WBL- Phase 2 -Bridge Deck Grooving	3	30-Dec-24	03-Jan-25	162
CON3-A1-1760	B-672 WBL- Phase 2 -Approach Excavation/Pedestals/Backfill/Slabs	10	03-Jan-25	21-Jan-25	162
CON3-A1-1910	B-672 WBL- Phase 2 -Bridge Mounted Soundwall	5	21-Jan-25	29-Jan-25	162
CON3-A1-1950	B-672 WBL- Phase 2 -Stage 2 Safety Inspection and Punchlist	13	29-Jan-25	21-Feb-25	162
CON3-A1-2000	B-672 WBL- Phase 2 -Bridge Available for Traffic - Switch to Final Config	0		21-Feb-25	162
B-672- I-64 EBL over King Street		**195**	**07-Aug-24**	**06-Jun-25**	**92**
CON3-A1-1080	B-672 EBL- Phase 2 -Abutment Excavation	5	07-Aug-24	14-Aug-24	169
CON3-A1-1130	B-672 EBL- Phase 2 -Abutment Foundations	13	14-Aug-24	03-Sep-24	169
CON3-A1-1210	B-672 EBL- Phase 2 -Abutment Demolition	3	03-Sep-24	06-Sep-24	169
CON3-A1-1220	B-672 EBL- Phase 2 -Abutment Substructure Concrete	8	06-Sep-24	18-Sep-24	169
CON3-A1-1310	B-672 EBL- Phase 2 -Slope Protection	5	18-Sep-24	25-Sep-24	240
CON3-A1-1550	B-672 EBL- Phase 2 -Pier Foundations	16	11-Nov-24	09-Dec-24	92
CON3-A1-1650	B-672 EBL- Phase 2 -Pier Substructure Concrete	15	09-Dec-24	02-Jan-25	92
CON3-A1-1740	B-672 EBL- Phase 2 -Pier Backfill	5	02-Jan-25	10-Jan-25	92
CON3-A1-1840	B-672 EBL- Phase 2 -N Kings St MOT Removal and Restoration	5	10-Jan-25	20-Jan-25	92
CON3-A1-1900	B-672 EBL- Phase 2 -Set Girders	3	20-Jan-25	24-Jan-25	92
CON3-A1-1920	B-672 EBL- Phase 2 -Demo Existing Parapet and Overhang	5	24-Jan-25	31-Jan-25	92
CON3-A1-1960	B-672 EBL- Phase 2 -Deck and Overhang Forms	8	31-Jan-25	14-Feb-25	92
CON3-A1-1980	B-672 EBL- Phase 2 -Deck Reinforcing	5	14-Feb-25	25-Feb-25	92
CON3-A1-2020	B-672 EBL- Phase 2 -Pour/Cure Decks	8	25-Feb-25	11-Mar-25	92
CON3-A1-2080	B-672 EBL- Phase 2 -Parapets	5	11-Mar-25	18-Mar-25	92
CON3-A1-2120	B-672 EBL- Phase 2 -Pier Joint Closures	8	18-Mar-25	28-Mar-25	92
CON3-A1-2130	B-672 EBL- Phase 2 -Abutment Support of Excavation	3	28-Mar-25	03-Apr-25	108
CON3-A1-2140	B-672 EBL- Phase 2 -Deck Extensions	8	28-Mar-25	10-Apr-25	92
CON3-A1-2170	B-672 EBL- Phase 2 -Bridge Deck Milling/Repairs/Latex Overlay	8	10-Apr-25	22-Apr-25	92
CON3-A1-2220	B-672 EBL- Phase 2 -Bridge Deck Grooving	3	22-Apr-25	25-Apr-25	92
CON3-A1-2230	B-672 EBL- Phase 2 -Approach Excavation/Pedestals/Backfill/Slabs	10	25-Apr-25	12-May-25	92
CON3-A1-2260	B-672 EBL- Phase 2 -Bridge Mounted Soundwall	5	12-May-25	19-May-25	92
CON3-A1-2280	B-672 EBL- Phase 2 -Stage 2 Safety Inspection and Punchlist	13	19-May-25	06-Jun-25	92
CON3-A1-2320	B-672 EBL- Phase 2 -Bridge Available for Traffic - Switch to Final Config	0	06-Jun-25		92
B-659 - I-64 EBL/WBL over Rip Rap Road - Phase 2		**170**	**31-Jul-24**	**23-Apr-25**	**122**
B-659 - I-64 WBL over Rip Rap Road		**85**	**31-Jul-24**	**06-Dec-24**	**122**
CON3-A1-1000	B-659 WBL - Phase 2 - Pier Joint Closures	15	31-Jul-24	21-Aug-24	122
CON3-A1-1140	B-659 WBL - Phase 2 -Abutment Support of Excavation	5	21-Aug-24	28-Aug-24	152



🟦 Actual Work
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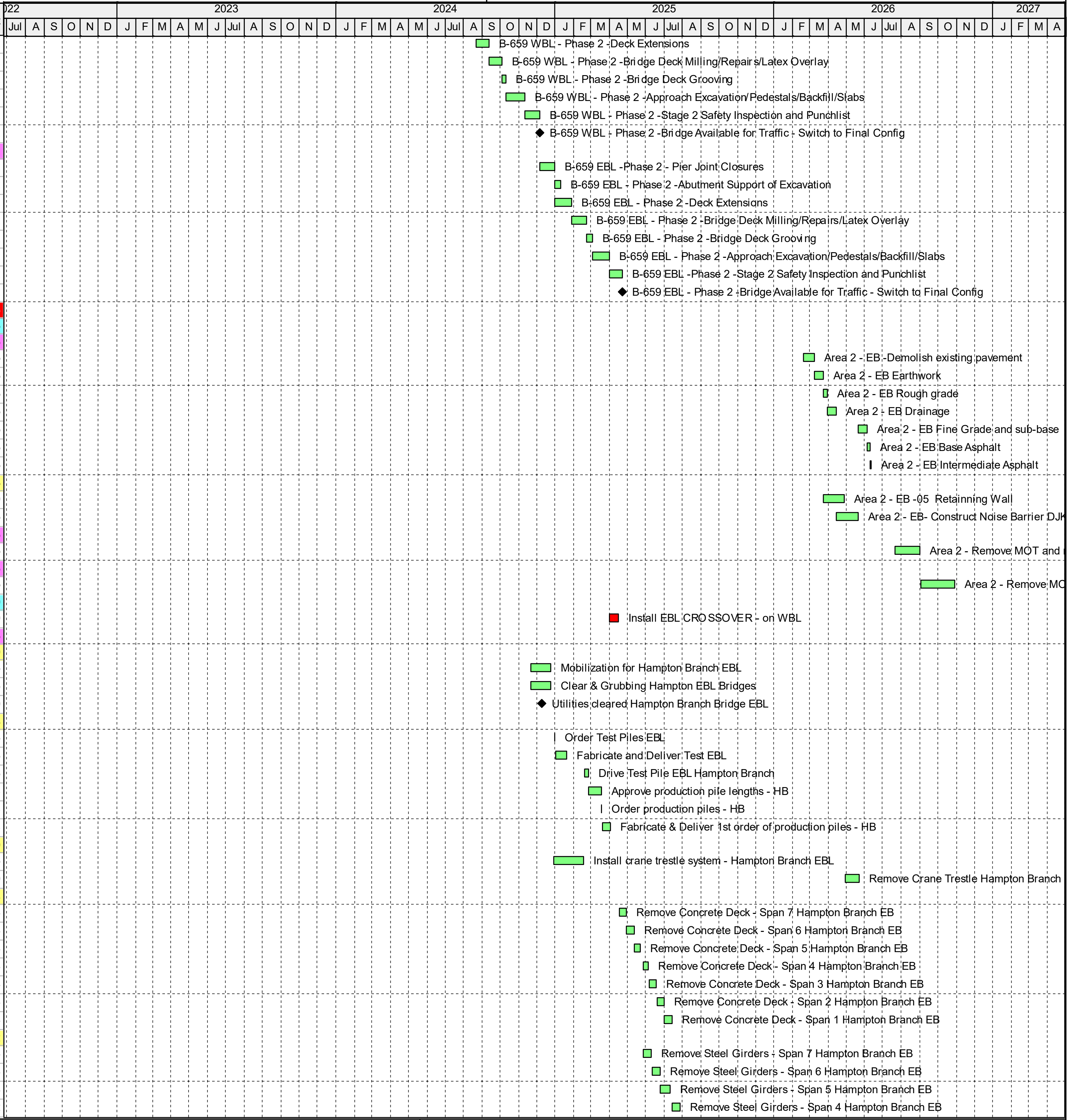
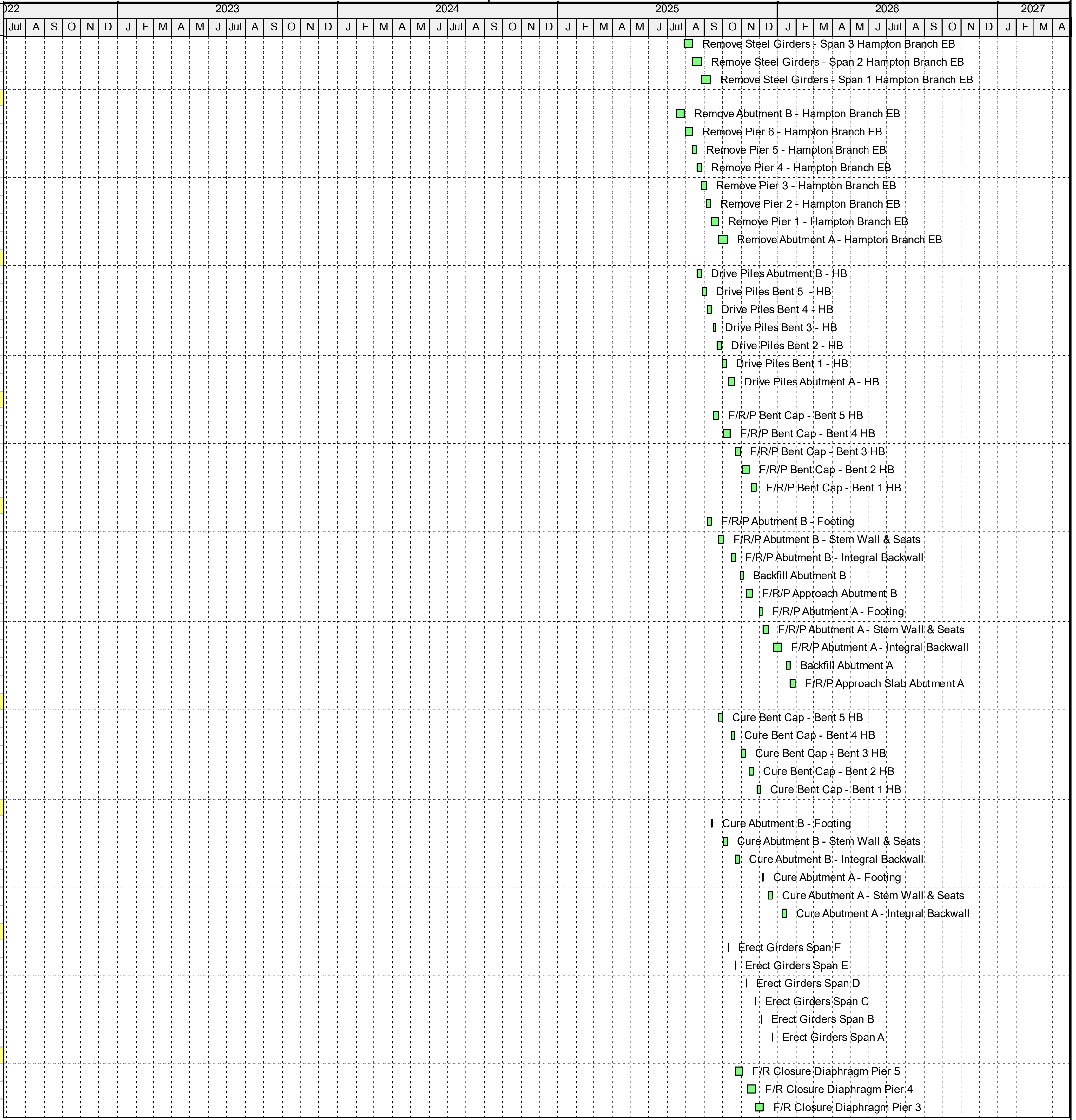
◆ Milestone

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
CON3-A1-1150	B-659 WBL - Phase 2 -Deck Extensions	15	21-Aug-24	12-Sep-24	122
CON3-A1-1290	B-659 WBL - Phase 2 -Bridge Deck Milling/Repairs/Latex Overlay	15	12-Sep-24	04-Oct-24	122
CON3-A1-1400	B-659 WBL - Phase 2 -Bridge Deck Grooving	5	04-Oct-24	11-Oct-24	122
CON3-A1-1440	B-659 WBL - Phase 2 -Approach Excavation/Pedestals/Backfill/Slabs	20	11-Oct-24	11-Nov-24	122
CON3-A1-1530	B-659 WBL - Phase 2 -Stage 2 Safety Inspection and Punchlist	15	11-Nov-24	06-Dec-24	122
CON3-A1-1620	B-659 WBL - Phase 2 -Bridge Available for Traffic - Switch to Final Config	0	06-Dec-24		122
B-659 - I-64 EBL over Rip Rap Road		85	06-Dec-24	23-Apr-25	122
CON3-A1-3010	B-659 EBL -Phase 2 - Pier Joint Closures	15	06-Dec-24	31-Dec-24	122
CON3-A1-3020	B-659 EBL - Phase 2 -Abutment Support of Excavation	5	31-Dec-24	09-Jan-25	152
CON3-A1-3030	B-659 EBL - Phase 2 -Deck Extensions	15	31-Dec-24	27-Jan-25	122
CON3-A1-3040	B-659 EBL - Phase 2 -Bridge Deck Milling/Repairs/Latex Overlay	15	27-Jan-25	21-Feb-25	122
CON3-A1-3050	B-659 EBL - Phase 2 -Bridge Deck Grooving	5	21-Feb-25	03-Mar-25	122
CON3-A1-3060	B-659 EBL - Phase 2 -Approach Excavation/Pedestals/Backfill/Slabs	20	03-Mar-25	01-Apr-25	122
CON3-A1-3070	B-659 EBL -Phase 2 -Stage 2 Safety Inspection and Punchlist	15	01-Apr-25	23-Apr-25	122
CON3-A1-3080	B-659 EBL - Phase 2 -Bridge Available for Traffic - Switch to Final Config	0	23-Apr-25		122
Area 2 - 721+13 to 748+22 (2,709 LF)		460	21-Nov-24	29-Oct-26	35
Area 2 - Roadway		170	19-Feb-26	29-Oct-26	5
Area 2- Eastbound- I-64 Roadway 736+00 to 740+21		75	19-Feb-26	12-Jun-26	65
CON3-A2-1000	Area 2 - EB -Demolish existing pavement	10	19-Feb-26	09-Mar-26	65
CON3-A2-1100	Area 2 - EB Earthwork	10	09-Mar-26	24-Mar-26	65
CON3-A2-1010	Area 2 - EB Rough grade	5	24-Mar-26	31-Mar-26	65
CON3-A2-1030	Area 2 - EB Drainage	10	31-Mar-26	15-Apr-26	65
CON3-A2-1050	Area 2 - EB Fine Grade and sub-base	10	21-May-26	05-Jun-26	65
CON3-A2-1060	Area 2 - EB Base Asphalt	3	05-Jun-26	10-Jun-26	65
CON3-A2-1070	Area 2 - EB Intermediate Asphalt	2	10-Jun-26	12-Jun-26	65
Retaining Wall and Noise Barriers		40	24-Mar-26	21-May-26	65
CON3-A2-1020	Area 2 - EB -05 Retainning Wall	23	24-Mar-26	27-Apr-26	80
CON3-A2-1040	Area 2 - EB- Construct Noise Barrier DJKL	25	15-Apr-26	21-May-26	65
River Street		30	22-Jul-26	01-Sep-26	5
CON3-A2-1080	Area 2 - Remove MOT and restore River St.and River Park	30	22-Jul-26	01-Sep-26	5
Boxwood Street		40	03-Sep-26	29-Oct-26	5
CON3-A2-1090	Area 2 - Remove MOT and restore Boxwood St.	40	03-Sep-26	29-Oct-26	5
Eastbound Bridges		456	21-Nov-24	23-Oct-26	39
1WWDK3000	Install EBL CROSSOVER - on WBL	10	01-Apr-25	15-Apr-25	0
E. Branch Hampton River Bridge		384	21-Nov-24	13-Jul-26	5
Mobilization		20	21-Nov-24	24-Dec-24	70
1BEMB1000	Mobilization for Hampton Branch EBL	20	21-Nov-24	24-Dec-24	36
1BEMB1010	Clear & Grubbing Hampton EBL Bridges	20	21-Nov-24	24-Dec-24	36
1BEUT1010	Utilities cleared Hampton Branch Bridge EBL	0	09-Dec-24		80
Test Pile		57	31-Dec-24	03-Apr-25	98
1BETP1310	Order Test Piles EBL	1	31-Dec-24	31-Dec-24	86
1BETP1320	Fabricate and Deliver Test EBL	20	01-Jan-25	20-Jan-25	86
1BETP1330	Drive Test Pile EBL Hampton Branch	5	18-Feb-25	25-Feb-25	36
1BETP1340	Approve production pile lengths - HB	21	26-Feb-25	18-Mar-25	144
1BETP1350	Order production piles - HB	1	19-Mar-25	19-Mar-25	144
1BETP1360	Fabricate & Deliver 1st order of production piles - HB	15	20-Mar-25	03-Apr-25	144
Trestle		313	30-Dec-24	22-May-26	20
1BETR1000	Install crane trestle system - Hampton Branch EBL	30	30-Dec-24	17-Feb-25	36
1BETR1010	Remove Crane Trestle Hampton Branch EBL	15	30-Apr-26	22-May-26	20
Demo Concrete Decks		56	17-Apr-25	15-Jul-25	4
1BEDM1000	Remove Concrete Deck - Span 7 Hampton Branch EB	8	17-Apr-25	29-Apr-25	4
1BEDM1010	Remove Concrete Deck - Span 6 Hampton Branch EB	8	30-Apr-25	12-May-25	4
1BEDM1020	Remove Concrete Deck - Span 5 Hampton Branch EB	8	13-May-25	23-May-25	4
1BEDM1030	Remove Concrete Deck - Span 4 Hampton Branch EB	8	27-May-25	05-Jun-25	4
1BEDM1040	Remove Concrete Deck - Span 3 Hampton Branch EB	8	06-Jun-25	18-Jun-25	4
1BEDM1050	Remove Concrete Deck - Span 2 Hampton Branch EB	8	19-Jun-25	01-Jul-25	4
1BEDM1060	Remove Concrete Deck - Span 1 Hampton Branch EB	8	02-Jul-25	15-Jul-25	4
Demo Steel Girders		70	27-May-25	11-Sep-25	32
1BEDM1070	Remove Steel Girders - Span 7 Hampton Branch EB	10	27-May-25	09-Jun-25	24
1BEDM1080	Remove Steel Girders - Span 6 Hampton Branch EB	10	11-Jun-25	24-Jun-25	24
1BEDM1090	Remove Steel Girders - Span 5 Hampton Branch EB	10	25-Jun-25	11-Jul-25	24
1BEDM1100	Remove Steel Girders - Span 4 Hampton Branch EB	10	14-Jul-25	28-Jul-25	32



Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
1BEDM1110	Remove Steel Girders - Span 3 Hampton Branch EB	10	29-Jul-25	11-Aug-25	32
1BEDM1120	Remove Steel Girders - Span 2 Hampton Branch EB	10	12-Aug-25	26-Aug-25	32
1BEDM1130	Remove Steel Girders - Span 1 Hampton Branch EB	10	27-Aug-25	11-Sep-25	32
Demo Concrete Piers		**56**	**16-Jul-25**	**09-Oct-25**	**32**
1BEDM1140	Remove Abutment B - Hampton Branch EB	10	16-Jul-25	30-Jul-25	4
1BEDM1150	Remove Pier 6 - Hampton Branch EB	8	31-Jul-25	11-Aug-25	4
1BEDM1160	Remove Pier 5 - Hampton Branch EB	5	12-Aug-25	19-Aug-25	4
1BEDM1170	Remove Pier 4 - Hampton Branch EB	5	20-Aug-25	26-Aug-25	22
1BEDM1180	Remove Pier 3 - Hampton Branch EB	5	27-Aug-25	03-Sep-25	30
1BEDM1190	Remove Pier 2 - Hampton Branch EB	5	04-Sep-25	11-Sep-25	32
1BEDM1200	Remove Pier 1 - Hampton Branch EB	8	12-Sep-25	23-Sep-25	32
1BEDM1210	Remove Abutment A - Hampton Branch EB	10	24-Sep-25	09-Oct-25	32
Piling		**39**	**20-Aug-25**	**20-Oct-25**	**32**
1BEPD1020	Drive Piles Abutment B - HB	6	20-Aug-25	27-Aug-25	4
1BEPD1030	Drive Piles Bent 5 - HB	5	28-Aug-25	04-Sep-25	4
1BEPD1120	Drive Piles Bent 4 - HB	5	05-Sep-25	12-Sep-25	16
1BEPD1040	Drive Piles Bent 3 - HB	5	15-Sep-25	19-Sep-25	24
1BEPD1100	Drive Piles Bent 2 - HB	5	22-Sep-25	29-Sep-25	26
1BEPD1110	Drive Piles Bent 1 - HB	5	30-Sep-25	07-Oct-25	29
1BEPD1090	Drive Piles Abutment A - HB	6	10-Oct-25	20-Oct-25	32
Bent Cap		**47**	**15-Sep-25**	**26-Nov-25**	**4**
1BEBC1200	F/R/P Bent Cap - Bent 5 HB	7	15-Sep-25	23-Sep-25	4
1BEBC1240	F/R/P Bent Cap - Bent 4 HB	8	03-Oct-25	14-Oct-25	4
1BEBC1220	F/R/P Bent Cap - Bent 3 HB	7	23-Oct-25	31-Oct-25	4
1BEBC1250	F/R/P Bent Cap - Bent 2 HB	8	03-Nov-25	14-Nov-25	4
1BEBC1260	F/R/P Bent Cap - Bent 1 HB	7	18-Nov-25	26-Nov-25	4
Abutments		**88**	**05-Sep-25**	**30-Jan-26**	**12**
1BEAB1400	F/R/P Abutment B - Footing	5	05-Sep-25	12-Sep-25	4
1BEAB1420	F/R/P Abutment B - Stem Wall & Seats	5	24-Sep-25	02-Oct-25	4
1BEAB1440	F/R/P Abutment B - Integral Backwall	5	16-Oct-25	22-Oct-25	4
1BEAB1520	Backfill Abutment B	5	30-Oct-25	05-Nov-25	40
1BEAB1530	F/R/P Approach Abutment B	7	10-Nov-25	20-Nov-25	40
1BEAB1460	F/R/P Abutment A - Footing	5	01-Dec-25	05-Dec-25	8
1BEAB1480	F/R/P Abutment A - Stem Wall & Seats	5	08-Dec-25	15-Dec-25	9
1BEAB1500	F/R/P Abutment A - Integral Backwall	5	24-Dec-25	07-Jan-26	11
1BEAB1540	Backfill Abutment A	5	15-Jan-26	21-Jan-26	12
1BEAB1550	F/R/P Approach Slab Abutment A	7	22-Jan-26	30-Jan-26	12
Cure - Bent Cap		**71**	**24-Sep-25**	**03-Dec-25**	**20**
1BEBC1210	Cure Bent Cap - Bent 5 HB	7	24-Sep-25	30-Sep-25	20
1BEBC1280	Cure Bent Cap - Bent 4 HB	7	15-Oct-25	21-Oct-25	22
1BEBC1230	Cure Bent Cap - Bent 3 HB	7	01-Nov-25	07-Nov-25	18
1BEBC1290	Cure Bent Cap - Bent 2 HB	7	15-Nov-25	21-Nov-25	19
1BEBC1300	Cure Bent Cap - Bent 1 HB	7	27-Nov-25	03-Dec-25	20
Cure Abutment		**124**	**13-Sep-25**	**14-Jan-26**	**18**
1BEAB1410	Cure Abutment B - Footing	2	13-Sep-25	14-Sep-25	17
1BEAB1430	Cure Abutment B - Stem Wall & Seats	7	03-Oct-25	09-Oct-25	11
1BEAB1450	Cure Abutment B - Integral Backwall	7	23-Oct-25	29-Oct-25	75
1BEAB1470	Cure Abutment A - Footing	2	06-Dec-25	07-Dec-25	15
1BEAB1490	Cure Abutment A - Stem Wall & Seats	7	16-Dec-25	22-Dec-25	21
1BEAB1510	Cure Abutment A - Integral Backwall	7	08-Jan-26	14-Jan-26	18
Girders & Beams		**45**	**10-Oct-25**	**23-Dec-25**	**9**
1BEGD1000	Erect Girders Span F	1	10-Oct-25	10-Oct-25	6
1BEGD1010	Erect Girders Span E	1	22-Oct-25	22-Oct-25	14
1BEGD1020	Erect Girders Span D	1	10-Nov-25	10-Nov-25	10
1BEGD1030	Erect Girders Span C	1	24-Nov-25	24-Nov-25	10
1BEGD1050	Erect Girders Span B	1	04-Dec-25	04-Dec-25	12
1BEGD1040	Erect Girders Span A	1	23-Dec-25	23-Dec-25	9
Diaphragms		**45**	**23-Oct-25**	**12-Jan-26**	**9**
1BEDG1610	F/R Closure Diaphragm Pier 5	8	23-Oct-25	03-Nov-25	14
1BEDG1620	F/R Closure Diaphragm Pier 4	8	11-Nov-25	24-Nov-25	10
1BEDG1630	F/R Closure Diaphragm Pier 3	8	25-Nov-25	08-Dec-25	10



🟦 Actual Work	🟥 Critical Remaining Work
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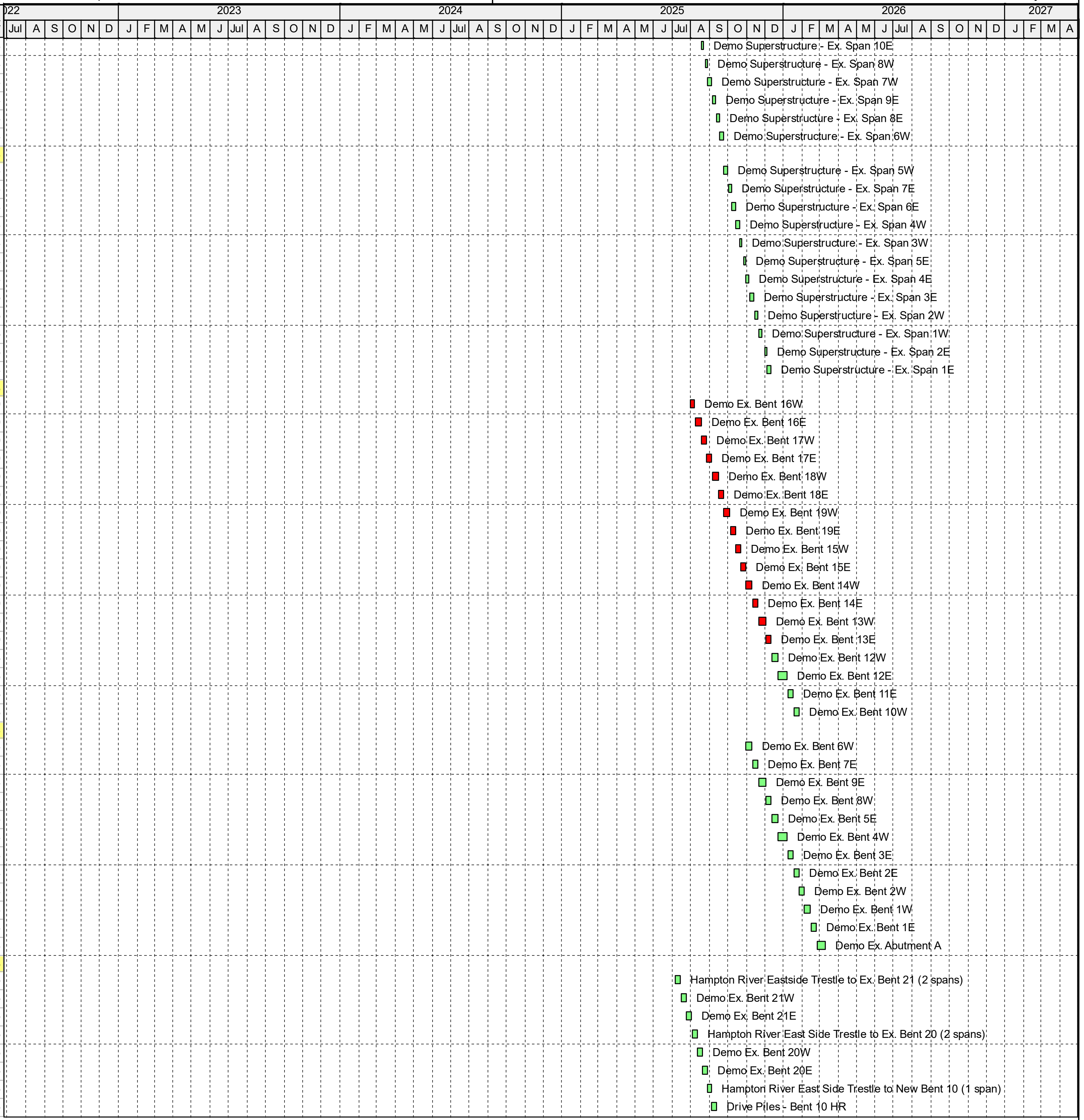
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
1BEDG1640	F/R Closure Diaphragm Pier 2	8	09-Dec-25	22-Dec-25	10
1BEDG1650	F/R Closure Diaphragm Pier 1	8	24-Dec-25	12-Jan-26	9
Decks East Branch Hampton River Bridge		**50**	**01-Dec-25**	**24-Feb-26**	**5**
1BEDK1700	F/R Span F	8	01-Dec-25	11-Dec-25	4
1BEDK1710	F/R Span E	8	11-Dec-25	23-Dec-25	4
1BEDK1720	F/R Span D	8	23-Dec-25	09-Jan-26	4
1BEDK1780	Place Span F	1	24-Dec-25	24-Dec-25	31
1BEDK1830	F/R Span C	8	09-Jan-26	21-Jan-26	4
1BEDK1790	Place Span E	1	12-Jan-26	12-Jan-26	25
1BEDK1770	Place Closure Pier 5	1	20-Jan-26	20-Jan-26	26
1BEDK1840	F/R Span B	8	21-Jan-26	30-Jan-26	4
1BEDK1800	Place Span D	1	22-Jan-26	22-Jan-26	19
1BEDK1722	Place Closure Pier 4	1	30-Jan-26	30-Jan-26	19
1BEDK1850	F/R Span A	8	30-Jan-26	12-Feb-26	4
1BEDK1860	Place Span C	1	02-Feb-26	02-Feb-26	10
1BEDK1732	Place Closure Pier 3	1	10-Feb-26	10-Feb-26	13
1BEDK1870	Place Span B	1	13-Feb-26	13-Feb-26	4
1BEDK1880	Place Span A	1	16-Feb-26	16-Feb-26	4
1BEDK1920	Place Closure Pier 2	1	23-Feb-26	23-Feb-26	6
1BEDK1930	Place Closure Pier 1	1	24-Feb-26	24-Feb-26	5
Decks Cure		**61**	**25-Dec-25**	**23-Feb-26**	**7**
1BEDK1705	Cure Span F	7	25-Dec-25	31-Dec-25	60
1BEDK1715	Cure Span E	7	13-Jan-26	19-Jan-26	41
1BEDK1725	Cure Span D	7	23-Jan-26	29-Jan-26	32
1BEDK1890	Cure Span C	7	03-Feb-26	09-Feb-26	21
1BEDK1900	Cure Span B	7	14-Feb-26	20-Feb-26	10
1BEDK1910	Cure Span A	7	17-Feb-26	23-Feb-26	7
Barrier / Soundwall / Gooving / Stripe		**85**	**25-Feb-26**	**13-Jul-26**	**5**
1BEDK2610	Place Barriers - Abutment A to Bent 5	25	25-Feb-26	03-Apr-26	5
1BEDK2620	Construct Soundwalls - Abutment A to Bent 5	25	20-Mar-26	29-Apr-26	20
1BEDK2630	Roadwork Closeout East of Hampton Branch	60	06-Apr-26	13-Jul-26	5
1BEDK2640	Groove & Stripe	10	30-Apr-26	15-May-26	40
1BEDK2650	Remove Construction Access- Hampton Branch	15	26-May-26	18-Jun-26	20
EB Hampton River Bridge		**389**	**17-Mar-25**	**23-Oct-26**	**39**
Mobilization		**45**	**17-Mar-25**	**27-May-25**	**41**
1REMB2365	Clear Utilities Hampton River Bridge	20	17-Mar-25	15-Apr-25	10
1REMB2350	Mobilization Hampton River	20	17-Apr-25	19-May-25	41
1REMB2360	Clearing & Grubbing Hampton River EBL	20	25-Apr-25	27-May-25	41
Test Piles		**39**	**25-Apr-25**	**21-Jun-25**	**68**
1RETP1000	Drive Test Pile EBL Hampton River	10	25-Apr-25	09-May-25	0
1RETP1010	Approve production pile lengths - HR	21	10-May-25	30-May-25	100
1RETP1020	Order production piles - HR	1	31-May-25	31-May-25	100
1RETP1030	Fabricate & Deliver production piles - HR	21	01-Jun-25	21-Jun-25	100
Demolition Superstructure - Hampton River		**92**	**02-May-25**	**23-Sep-25**	**14**
1REDM2190	Demo Superstructure - Ex. Span 11W	4	02-May-25	07-May-25	0
1REDM2210	Demo Superstructure - Ex. Span 12W	4	09-May-25	15-May-25	0
1REDM2230	Demo Superstructure - Ex. Span 13W	4	16-May-25	21-May-25	0
1REDM2250	Demo Superstructure - Ex. Span 14W	4	22-May-25	28-May-25	0
1REDM2270	Demo Superstructure - Ex. Span 15W	4	29-May-25	03-Jun-25	0
1REDM2290	Demo Superstructure - Ex. Span 16W	4	04-Jun-25	09-Jun-25	0
1REDM2310	Demo Superstructure - Ex. Span 17W	4	11-Jun-25	16-Jun-25	0
1REDM2340	Demo Superstructure - Ex. Span 18E	4	17-Jun-25	20-Jun-25	0
1REDM2330	Demo Superstructure - Ex. Span 17E	4	23-Jun-25	27-Jun-25	0
1REDM2320	Demo Superstructure - Ex. Span 16E	4	30-Jun-25	03-Jul-25	0
1REDM2300	Demo Superstructure - Ex. Span 15E	4	07-Jul-25	11-Jul-25	0
1REDM2280	Demo Superstructure - Ex. Span 14E	4	14-Jul-25	17-Jul-25	0
1REDM2260	Demo Superstructure - Ex. Span 13E	4	18-Jul-25	24-Jul-25	0
1REDM2240	Demo Superstructure - Ex. Span 12E	4	25-Jul-25	30-Jul-25	0
1REDM2170	Demo Superstructure - Ex. Span 10W	4	31-Jul-25	05-Aug-25	14
1REDM2150	Demo Superstructure - Ex. Span 9W	4	06-Aug-25	11-Aug-25	14
1REDM2220	Demo Superstructure - Ex. Span 11E	4	12-Aug-25	18-Aug-25	14

🟦 Actual Work	🟥 Critical Remaining Work
🟩 Remaining Work ◆	◆ Milestone

C00117841DB111- I-64 Hampton Roads Express Lanes (HREL) Segment 4C | 4.6.1 Proposal Schedule | 12- May- 22

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
1REDM2200	Demo Superstructure - Ex. Span 10E	4	19-Aug-25	22-Aug-25	14
1REDM2140	Demo Superstructure - Ex. Span 8W	4	25-Aug-25	28-Aug-25	14
1REDM2120	Demo Superstructure - Ex. Span 7W	4	29-Aug-25	04-Sep-25	14
1REDM2180	Demo Superstructure - Ex. Span 9E	4	05-Sep-25	11-Sep-25	14
1REDM2160	Demo Superstructure - Ex. Span 8E	4	12-Sep-25	17-Sep-25	14
1REDM2100	Demo Superstructure - Ex. Span 6W	4	18-Sep-25	23-Sep-25	14
Demolition Superstructure - River Street		**48**	**24-Sep-25**	**11-Dec-25**	**54**
1REDM2080	Demo Superstructure - Ex. Span 5W	4	24-Sep-25	30-Sep-25	14
1REDM2130	Demo Superstructure - Ex. Span 7E	4	02-Oct-25	07-Oct-25	14
1REDM2110	Demo Superstructure - Ex. Span 6E	4	08-Oct-25	13-Oct-25	14
1REDM2060	Demo Superstructure - Ex. Span 4W	4	14-Oct-25	20-Oct-25	14
1REDM2040	Demo Superstructure - Ex. Span 3W	4	21-Oct-25	24-Oct-25	14
1REDM2090	Demo Superstructure - Ex. Span 5E	4	27-Oct-25	30-Oct-25	14
1REDM2070	Demo Superstructure - Ex. Span 4E	4	31-Oct-25	05-Nov-25	34
1REDM2050	Demo Superstructure - Ex. Span 3E	4	06-Nov-25	13-Nov-25	36
1REDM2020	Demo Superstructure - Ex. Span 2W	4	14-Nov-25	20-Nov-25	36
1REDM2000	Demo Superstructure - Ex. Span 1W	4	21-Nov-25	26-Nov-25	36
1REDM2030	Demo Superstructure - Ex. Span 2E	4	01-Dec-25	04-Dec-25	36
1REDM2010	Demo Superstructure - Ex. Span 1E	4	05-Dec-25	11-Dec-25	54
Demolition Substructure - Hampton River		**108**	**31-Jul-25**	**26-Jan-26**	**3**
1REDM3220	Demo Ex. Bent 16W	6	31-Jul-25	07-Aug-25	0
1REDM3230	Demo Ex. Bent 16E	6	08-Aug-25	18-Aug-25	0
1REDM3240	Demo Ex. Bent 17W	6	19-Aug-25	26-Aug-25	0
1REDM3250	Demo Ex. Bent 17E	6	27-Aug-25	04-Sep-25	0
1REDM3260	Demo Ex. Bent 18W	6	05-Sep-25	15-Sep-25	0
1REDM3270	Demo Ex. Bent 18E	6	16-Sep-25	23-Sep-25	0
1REDM3280	Demo Ex. Bent 19W	6	24-Sep-25	03-Oct-25	0
1REDM3290	Demo Ex. Bent 19E	6	06-Oct-25	13-Oct-25	0
1REDM3200	Demo Ex. Bent 15W	6	14-Oct-25	22-Oct-25	0
1REDM3210	Demo Ex. Bent 15E	6	23-Oct-25	30-Oct-25	0
1REDM3180	Demo Ex. Bent 14W	6	31-Oct-25	10-Nov-25	0
1REDM3190	Demo Ex. Bent 14E	6	11-Nov-25	20-Nov-25	0
1REDM3160	Demo Ex. Bent 13W	6	21-Nov-25	02-Dec-25	0
1REDM3170	Demo Ex. Bent 13E	6	03-Dec-25	11-Dec-25	0
1REDM3140	Demo Ex. Bent 12W	6	12-Dec-25	22-Dec-25	3
1REDM3150	Demo Ex. Bent 12E	6	23-Dec-25	07-Jan-26	3
1REDM3130	Demo Ex. Bent 11E	6	08-Jan-26	16-Jan-26	3
1REDM3120	Demo Ex. Bent 10W	6	19-Jan-26	26-Jan-26	3
Demolition Subrstructure - River Street		**76**	**31-Oct-25**	**10-Mar-26**	**24**
1REDM3090	Demo Ex. Bent 6W	6	31-Oct-25	10-Nov-25	14
1REDM3080	Demo Ex. Bent 7E	6	11-Nov-25	20-Nov-25	14
1REDM3110	Demo Ex. Bent 9E	6	21-Nov-25	02-Dec-25	14
1REDM3100	Demo Ex. Bent 8W	6	03-Dec-25	11-Dec-25	14
1REDM3070	Demo Ex. Bent 5E	6	12-Dec-25	22-Dec-25	14
1REDM3060	Demo Ex. Bent 4W	6	23-Dec-25	07-Jan-26	14
1REDM3050	Demo Ex. Bent 3E	6	08-Jan-26	16-Jan-26	14
1REDM3040	Demo Ex. Bent 2E	6	19-Jan-26	26-Jan-26	14
1REDM3030	Demo Ex. Bent 2W	6	27-Jan-26	03-Feb-26	14
1REDM3010	Demo Ex. Bent 1W	6	04-Feb-26	13-Feb-26	24
1REDM3020	Demo Ex. Bent 1E	6	16-Feb-26	24-Feb-26	24
1REDM3000	Demo Ex. Abutment A	10	25-Feb-26	10-Mar-26	24
Hampton River East Trestle Work		**87**	**07-Jul-25**	**19-Nov-25**	**16**
1REMB2370	Hampton River Eastside Trestle to Ex. Bent 21 (2 spans)	6	07-Jul-25	15-Jul-25	16
1REDM3320	Demo Ex. Bent 21W	6	16-Jul-25	24-Jul-25	16
1REDM3330	Demo Ex. Bent 21E	6	25-Jul-25	01-Aug-25	16
1REMB2380	Hampton River East Side Trestle to Ex. Bent 20 (2 spans)	6	04-Aug-25	11-Aug-25	16
1REDM3300	Demo Ex. Bent 20W	6	12-Aug-25	20-Aug-25	16
1REDM3310	Demo Ex. Bent 20E	6	21-Aug-25	28-Aug-25	16
1REMB2390	Hampton River East Side Trestle to New Bent 10 (1 span)	3	29-Aug-25	03-Sep-25	16
1REPD1100	Drive Piles - Bent 10 HR	6	04-Sep-25	12-Sep-25	16



🟦 Actual Work
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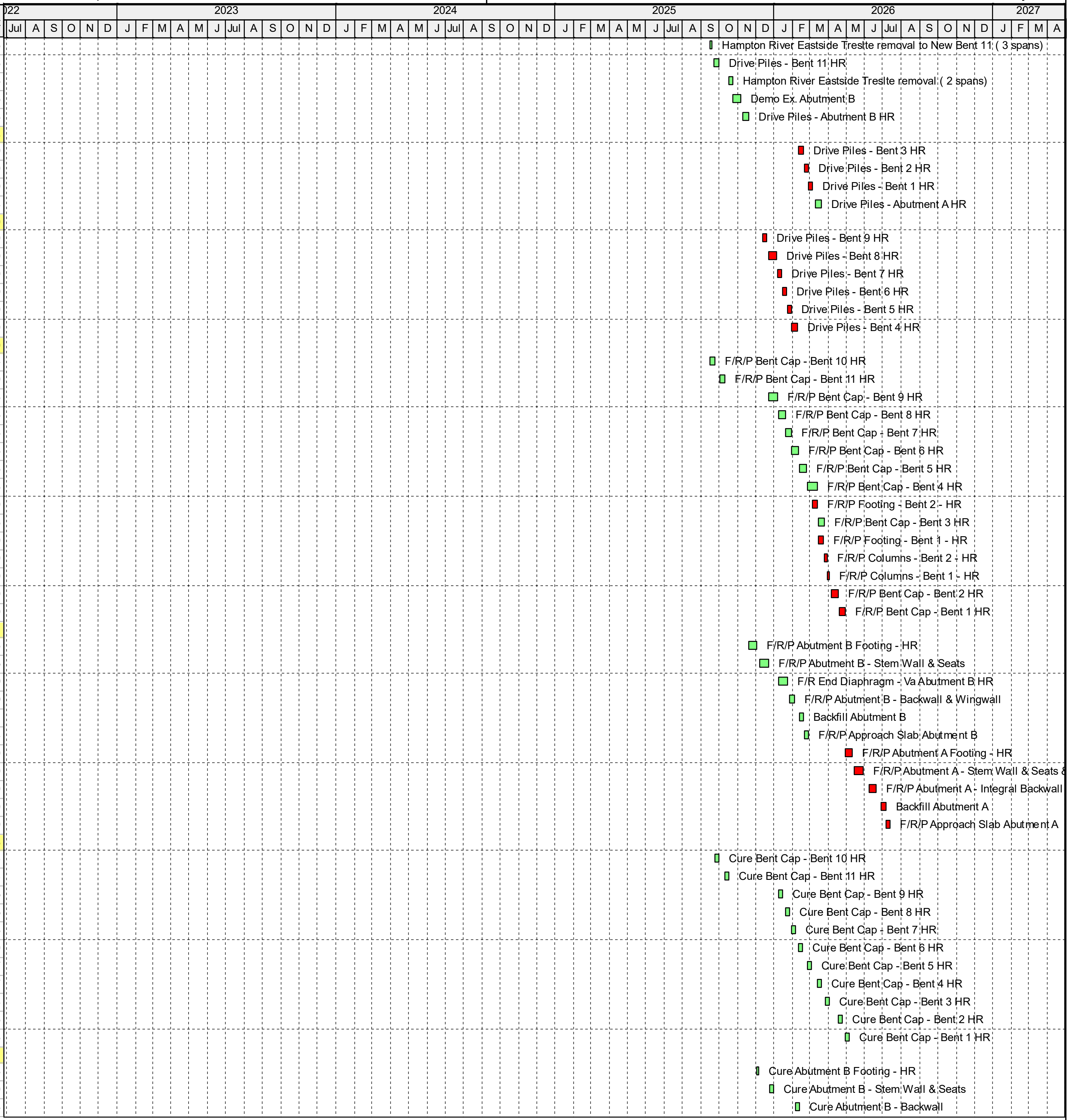
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
1REMB2400	Hampton River Eastside Treslte removal to New Bent 11 (3 spans)	5	15-Sep-25	19-Sep-25	16
1REPD1110	Drive Piles - Bent 11 HR	6	22-Sep-25	30-Sep-25	16
1REMB2410	Hampton River Eastside Treslte removal (2 spans)	5	17-Oct-25	23-Oct-25	16
1REDM3340	Demo Ex. Abutment B	10	24-Oct-25	06-Nov-25	16
1REPD1140	Drive Piles - Abutment B HR	6	10-Nov-25	19-Nov-25	16
Piling River Street		**25**	**10-Feb-26**	**20-Mar-26**	**24**
1REPD1030	Drive Piles - Bent 3 HR	6	10-Feb-26	19-Feb-26	0
1REPD1020	Drive Piles - Bent 2 HR	5	20-Feb-26	26-Feb-26	0
1REPD1010	Drive Piles - Bent 1 HR	5	27-Feb-26	05-Mar-26	0
1REPD1000	Drive Piles - Abutment A HR	6	11-Mar-26	20-Mar-26	24
Piling Hampton River		**33**	**12-Dec-25**	**09-Feb-26**	**0**
1REPD1090	Drive Piles - Bent 9 HR	5	12-Dec-25	19-Dec-25	0
1REPD1080	Drive Piles - Bent 8 HR	6	22-Dec-25	05-Jan-26	0
1REPD1070	Drive Piles - Bent 7 HR	5	07-Jan-26	13-Jan-26	0
1REPD1060	Drive Piles - Bent 6 HR	6	15-Jan-26	22-Jan-26	0
1REPD1050	Drive Piles - Bent 5 HR	5	23-Jan-26	29-Jan-26	0
1REPD1040	Drive Piles - Bent 4 HR	6	30-Jan-26	09-Feb-26	0
Bent Cap		**137**	**15-Sep-25**	**29-Apr-26**	**0**
1REBC1040	F/R/P Bent Cap - Bent 10 HR	7	15-Sep-25	23-Sep-25	44
1REBC1050	F/R/P Bent Cap - Bent 11 HR	7	02-Oct-25	10-Oct-25	40
1REBC1030	F/R/P Bent Cap - Bent 9 HR	7	22-Dec-25	07-Jan-26	6
1REBC1020	F/R/P Bent Cap - Bent 8 HR	7	08-Jan-26	19-Jan-26	6
1REBC1010	F/R/P Bent Cap - Bent 7 HR	8	20-Jan-26	29-Jan-26	6
1REBC1000	F/R/P Bent Cap - Bent 6 HR	7	30-Jan-26	10-Feb-26	6
1REBC1120	F/R/P Bent Cap - Bent 5 HR	8	12-Feb-26	24-Feb-26	6
1REBC1110	F/R/P Bent Cap - Bent 4 HR	12	25-Feb-26	13-Mar-26	6
1REBC1200	F/R/P Footing - Bent 2 - HR	5	06-Mar-26	13-Mar-26	0
1REBC1100	F/R/P Bent Cap - Bent 3 HR	7	16-Mar-26	26-Mar-26	6
1REBC1210	F/R/P Footing - Bent 1 - HR	5	16-Mar-26	23-Mar-26	0
1REBC1220	F/R/P Columns - Bent 2 - HR	4	25-Mar-26	30-Mar-26	0
1REBC1230	F/R/P Columns - Bent 1 - HR	4	31-Mar-26	03-Apr-26	0
1REBC1090	F/R/P Bent Cap - Bent 2 HR	8	06-Apr-26	17-Apr-26	0
1REBC1080	F/R/P Bent Cap - Bent 1 HR	7	20-Apr-26	29-Apr-26	0
Abutments		**140**	**20-Nov-25**	**13-Jul-26**	**1**
1REAB1000	F/R/P Abutment B Footing - HR	7	20-Nov-25	02-Dec-25	16
1REAB1020	F/R/P Abutment B - Stem Wall & Seats	10	08-Dec-25	23-Dec-25	15
1REDA1140	F/R End Diaphragm - Va Abutment B HR	10	09-Jan-26	23-Jan-26	29
1REAB1040	F/R/P Abutment B - Backwall & Wingwall	8	26-Jan-26	04-Feb-26	59
1REAB1053	Backfill Abutment B	5	12-Feb-26	19-Feb-26	61
1REAB1056	F/R/P Approach Slab Abutment B	5	20-Feb-26	26-Feb-26	84
1REAB1060	F/R/P Abutment A Footing - HR	7	30-Apr-26	11-May-26	0
1REAB1080	F/R/P Abutment A - Stem Wall & Seats & Wingwall	10	14-May-26	29-May-26	0
1REAB1100	F/R/P Abutment A - Integral Backwall	8	08-Jun-26	19-Jun-26	0
1REAB1120	Backfill Abutment A	5	29-Jun-26	06-Jul-26	0
1REAB1130	F/R/P Approach Slab Abutment A	4	07-Jul-26	13-Jul-26	0
Cure - Bent Cap		**225**	**24-Sep-25**	**06-May-26**	**26**
1REBC1045	Cure Bent Cap - Bent 10 HR	7	24-Sep-25	30-Sep-25	126
1REBC1055	Cure Bent Cap - Bent 11 HR	7	11-Oct-25	17-Oct-25	104
1REBC1035	Cure Bent Cap - Bent 9 HR	7	08-Jan-26	14-Jan-26	35
1REBC1025	Cure Bent Cap - Bent 8 HR	7	20-Jan-26	26-Jan-26	35
1REBC1015	Cure Bent Cap - Bent 7 HR	7	30-Jan-26	05-Feb-26	38
1REBC1005	Cure Bent Cap - Bent 6 HR	7	11-Feb-26	17-Feb-26	40
1REBC1170	Cure Bent Cap - Bent 5 HR	7	25-Feb-26	03-Mar-26	37
1REBC1160	Cure Bent Cap - Bent 4 HR	7	14-Mar-26	20-Mar-26	27
1REBC1150	Cure Bent Cap - Bent 3 HR	7	27-Mar-26	02-Apr-26	14
1REBC1140	Cure Bent Cap - Bent 2 HR	7	18-Apr-26	24-Apr-26	26
1REBC1130	Cure Bent Cap - Bent 1 HR	7	30-Apr-26	06-May-26	26
Cure Abutments		**230**	**03-Dec-25**	**20-Jul-26**	**1**
1REAB1010	Cure Abutment B Footing - HR	3	03-Dec-25	05-Dec-25	33
1REAB1030	Cure Abutment B - Stem Wall & Seats	7	24-Dec-25	30-Dec-25	30
1REAB1050	Cure Abutment B - Backwall	7	05-Feb-26	11-Feb-26	98



🟦 Actual Work   🟥 Critical Remaining Work

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Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
1REAB1058	Cure Approach Slab Abutment B	7	27-Feb-26	05-Mar-26	138
1REAB1070	Cure Abutment A Footing - HR	2	12-May-26	13-May-26	0
1REAB1090	Cure Abutment A - Stem Wall & Seats	7	30-May-26	05-Jun-26	0
1REAB1110	Cure Abutment A - Integral Backwall	7	20-Jun-26	26-Jun-26	0
1REAB1140	Cure Approach Slab Abutment A	7	14-Jul-26	20-Jul-26	0
Girders & Beams		**80**	**05-Jan-26**	**12-May-26**	**15**
1REGD1110	Erect Girders Span L	3	05-Jan-26	08-Jan-26	17
1REGD1100	Erect Girders Span K	3	09-Jan-26	13-Jan-26	17
1REGD1090	Erect Girders Span J	3	15-Jan-26	19-Jan-26	22
1REGD1080	Erect Girders Span I	3	27-Jan-26	29-Jan-26	22
1REGD1070	Erect Girders Span H	3	06-Feb-26	10-Feb-26	23
1REGD1060	Erect Girders Span G	3	18-Feb-26	20-Feb-26	25
1REGD1050	Erect Girders Span F	3	04-Mar-26	06-Mar-26	23
1REGD1030	Erect Girders Span D	4	03-Apr-26	09-Apr-26	8
1REGD1040	Erect Girders Span E	3	10-Apr-26	14-Apr-26	8
1REGD1020	Erect Girders Span C	2	27-Apr-26	28-Apr-26	16
1REGD1010	Erect Girders Span B	2	07-May-26	08-May-26	15
1REGD1000	Erect Girders Span A	2	11-May-26	12-May-26	15
Diaphragms		**97**	**15-Jan-26**	**19-Jun-26**	**8**
1REDA1110	F/R Closure Diaphragm- Bent 11 HR	8	15-Jan-26	26-Jan-26	17
1REDA1100	F/R Closure Diaphragm- Bent 10 HR	8	27-Jan-26	06-Feb-26	17
1REDA1090	F/R Closure Diaphragm- Bent 9 HR	8	09-Feb-26	20-Feb-26	17
1REDA1080	F/R Closure Diaphragm- Bent 8 HR	8	23-Feb-26	04-Mar-26	17
1REDA1070	F/R Closure Diaphragm- Bent 7 HR	8	05-Mar-26	17-Mar-26	17
1REDA1060	F/R Closure Diaphragm- Bent 6 HR	8	19-Mar-26	31-Mar-26	17
1REDA1050	F/R Closure Diaphragm- Bent 5 HR	8	16-Apr-26	28-Apr-26	8
1REDA1040	F/R Closure Diaphragm- Bent 4 HR	8	29-Apr-26	11-May-26	8
1REDA1030	F/R Closure Diaphragm- Bent 3 HR	8	12-May-26	22-May-26	8
1REDA1020	F/R Closure Diaphragm- Bent 2 HR	8	26-May-26	05-Jun-26	8
1REDA1010	F/R Closure Diaphragm- Bent 1 HR	8	08-Jun-26	19-Jun-26	8
Decks Hampton River		**105**	**09-Feb-26**	**28-Jul-26**	**9**
1REDK1115	F/R Deck - Span L	8	09-Feb-26	20-Feb-26	20
1REDK1105	F/R Deck - Span K	8	20-Feb-26	03-Mar-26	20
1REDK1095	F/R Deck - Span J	8	03-Mar-26	13-Mar-26	20
1REDK1690	Place Deck - Span L	1	04-Mar-26	04-Mar-26	79
1REDK1085	F/R Deck - Span I	8	11-Mar-26	25-Mar-26	20
1REDK1680	Place Deck - Span K	1	16-Mar-26	16-Mar-26	73
1REDK1075	F/R Deck - Span H	8	25-Mar-26	03-Apr-26	20
1REDA1260	Place Closure - Bent 11 HR	1	25-Mar-26	25-Mar-26	86
1REDK1670	Place Deck - Span J	1	26-Mar-26	26-Mar-26	68
1REDK1065	F/R Deck - Span G	8	03-Apr-26	16-Apr-26	20
1REDA1250	Place Closure - Bent 10 HR	1	03-Apr-26	03-Apr-26	79
1REDK1660	Place Deck - Span I	1	06-Apr-26	06-Apr-26	62
1REDA1240	Place Closure - Bent 9 HR	1	14-Apr-26	14-Apr-26	73
1REDK1650	Place Deck - Span H	1	17-Apr-26	17-Apr-26	56
1REDA1230	Place Closure - Bent 8 HR	1	27-Apr-26	27-Apr-26	66
1REDK1055	F/R Deck - Span F	8	29-Apr-26	11-May-26	12
1REDK1045	F/R Deck - Span E	8	12-May-26	22-May-26	11
1REDK1640	Place Deck - Span G	1	12-May-26	12-May-26	42
1REDA1220	Place Closure - Bent 7 HR	1	20-May-26	20-May-26	51
1REDK1030	F/R Deck - Span D	8	26-May-26	05-Jun-26	10
1REDK1630	Place Deck - Span F	1	26-May-26	26-May-26	35
1REDA1210	Place Closure - Bent 6 HR	1	03-Jun-26	03-Jun-26	43
1REDK1020	F/R Deck - Span C	8	08-Jun-26	19-Jun-26	9
1REDK1620	Place Deck - Span E	1	08-Jun-26	08-Jun-26	28
1REDA1200	Place Closure - Bent 5 HR	1	16-Jun-26	16-Jun-26	35
1REDK1010	F/R Deck - Span B	8	22-Jun-26	01-Jul-26	8
1REDK1610	Place Deck - Span D	1	22-Jun-26	22-Jun-26	21
1REDA1190	Place Closure - Bent 4 HR	1	30-Jun-26	30-Jun-26	26
1REDK1000	F/R Deck - Span A	8	01-Jul-26	14-Jul-26	8

🟦 Actual Work	🟥 Critical Remaining Work
🟩 Remaining Work ◆	◆ Milestone

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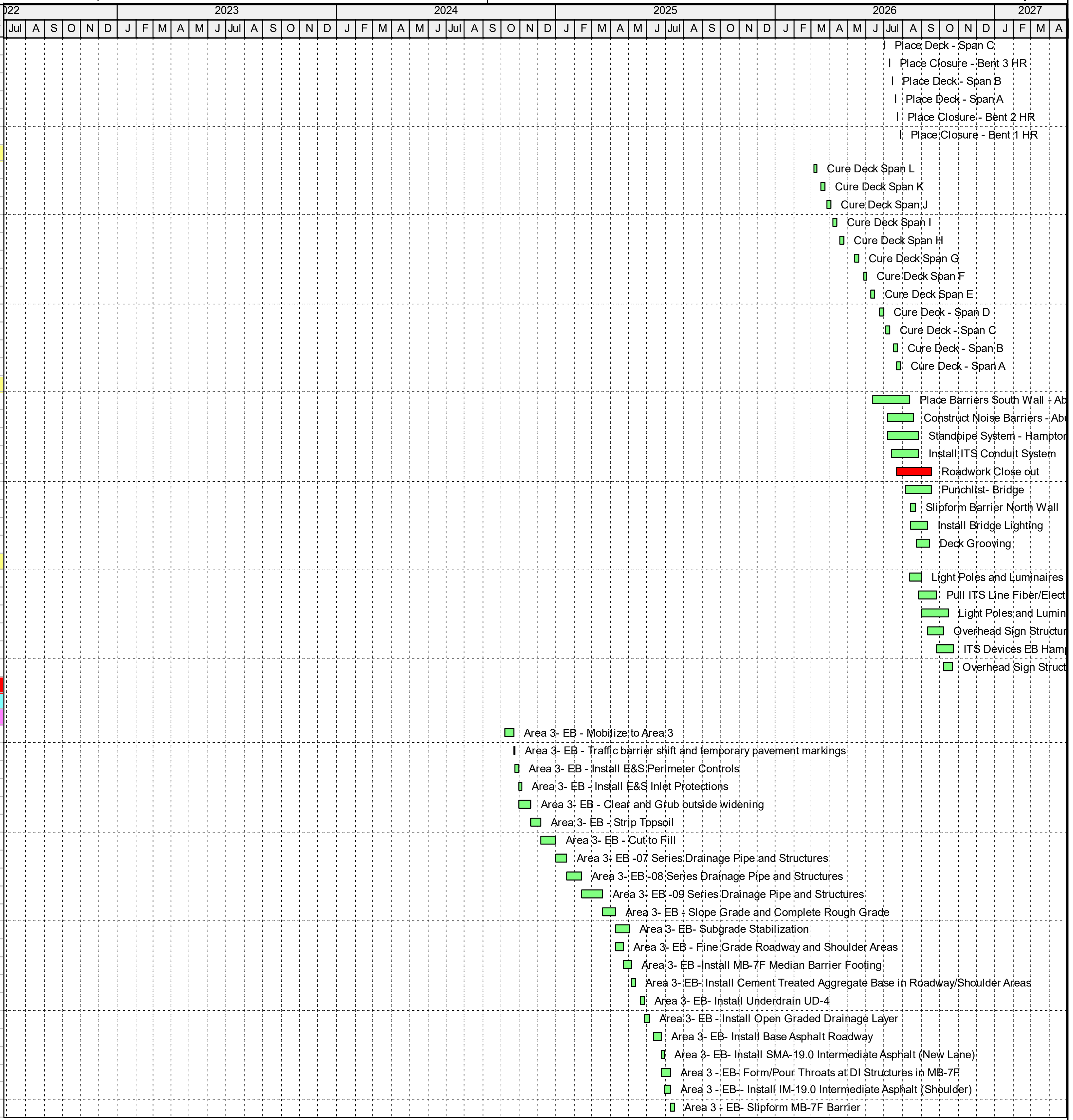
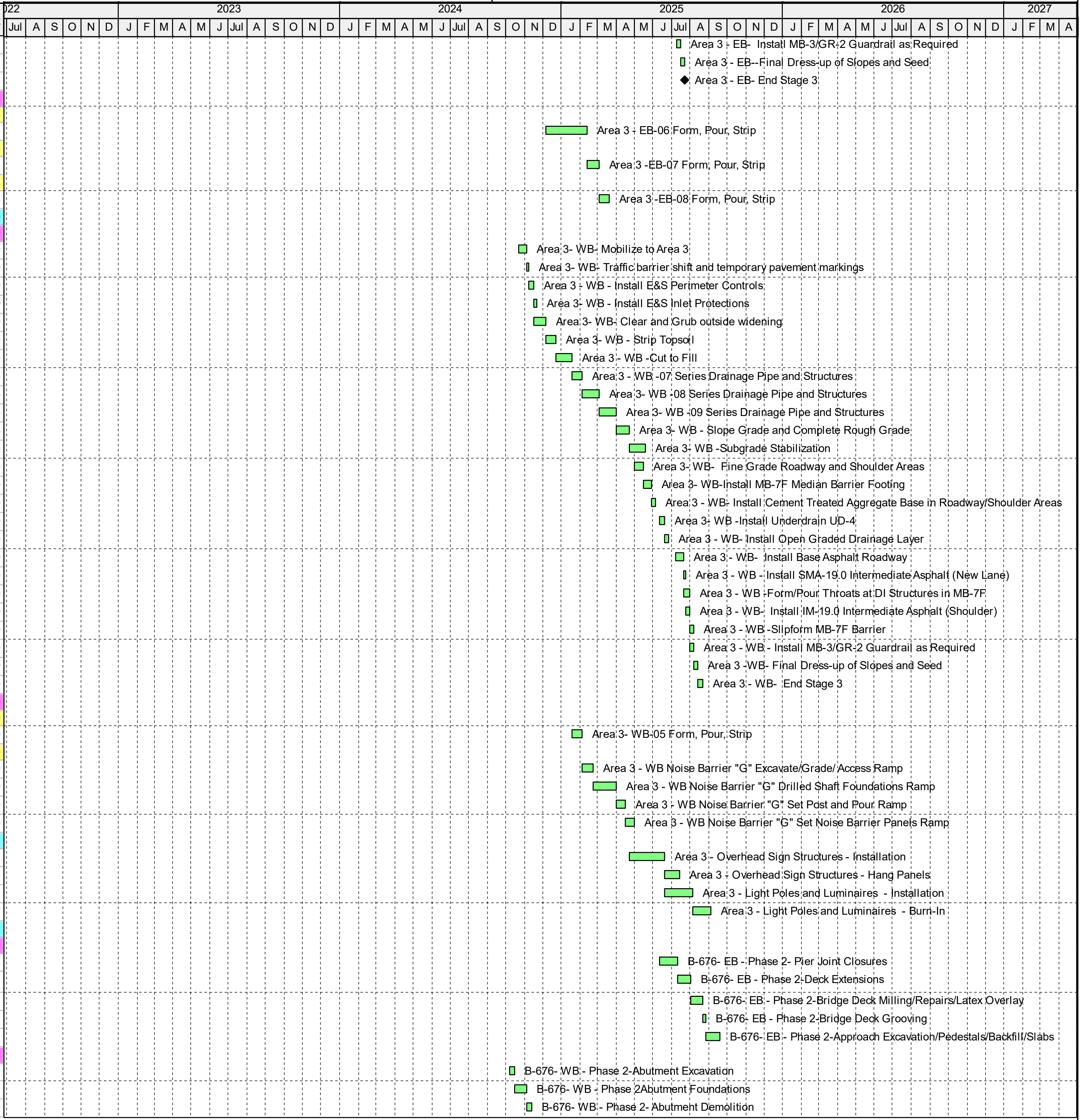
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
1REDK1600	Place Deck - Span C	1	02-Jul-26	02-Jul-26	14
1REDA1180	Place Closure - Bent 3 HR	1	10-Jul-26	10-Jul-26	20
1REDK1590	Place Deck - Span B	1	15-Jul-26	15-Jul-26	8
1REDK1580	Place Deck - Span A	1	20-Jul-26	20-Jul-26	8
1REDA1170	Place Closure - Bent 2 HR	1	23-Jul-26	23-Jul-26	12
1REDA1160	Place Closure - Bent 1 HR	1	28-Jul-26	28-Jul-26	9
Decks Cure		**145**	**05-Mar-26**	**27-Jul-26**	**13**
1REDK1120	Cure Deck Span L	7	05-Mar-26	11-Mar-26	151
1REDK1110	Cure Deck Span K	7	17-Mar-26	23-Mar-26	139
1REDK1100	Cure Deck Span J	7	27-Mar-26	02-Apr-26	129
1REDK1090	Cure Deck Span I	7	07-Apr-26	13-Apr-26	118
1REDK1080	Cure Deck Span H	7	18-Apr-26	24-Apr-26	107
1REDK1070	Cure Deck Span G	7	13-May-26	19-May-26	82
1REDK1060	Cure Deck Span F	7	27-May-26	02-Jun-26	68
1REDK1050	Cure Deck Span E	7	09-Jun-26	15-Jun-26	55
1REDK1035	Cure Deck - Span D	7	23-Jun-26	29-Jun-26	41
1REDK1025	Cure Deck - Span C	7	03-Jul-26	09-Jul-26	31
1REDK1015	Cure Deck - Span B	7	16-Jul-26	22-Jul-26	18
1REDK1005	Cure Deck - Span A	7	21-Jul-26	27-Jul-26	13
Barrier / Soundwall / Gooving / Stripe		**65**	**11-Jun-26**	**18-Sep-26**	**31**
1REDA2640	Place Barriers South Wall - Abutment B to A	40	11-Jun-26	11-Aug-26	9
1REDA2650	Construct Noise Barriers - Abutment B to A	30	06-Jul-26	19-Aug-26	10
1REDA2700	Standpipe System - Hampton River EBL	35	06-Jul-26	26-Aug-26	10
1REDA2710	Install ITS Conduit System	30	14-Jul-26	26-Aug-26	10
1REDA2690	Roadwork Close out	40	22-Jul-26	18-Sep-26	0
1REDA2680	Punchlist- Bridge	30	05-Aug-26	18-Sep-26	31
1REDA2660	Slipform Barrier North Wall	7	13-Aug-26	21-Aug-26	34
1REDA2720	Install Bridge Lighting	20	13-Aug-26	10-Sep-26	36
1REDA2670	Deck Grooving	15	24-Aug-26	14-Sep-26	34
ITS , Signage & Ligthing		**51**	**11-Aug-26**	**23-Oct-26**	**39**
LIGHT-004B	Light Poles and Luminaires - Installation	15	11-Aug-26	01-Sep-26	10
ITS-026B10	Pull ITS Line Fiber/Electric	20	26-Aug-26	25-Sep-26	9
LIGHT-004C	Light Poles and Luminaires- Burn-In	30	01-Sep-26	15-Oct-26	45
SIGN-003C	Overhead Sign Structures - Installation	20	10-Sep-26	08-Oct-26	10
ITS-005D	ITS Devices EB Hampton River Bridges (CCTVs, MVDs) - Testing	20	25-Sep-26	23-Oct-26	9
SIGN-003D	Overhead Sign Structures- Hang Panels	10	08-Oct-26	22-Oct-26	10
Area 3 - 748+22 to 785+72 (3,750 LF)		**332**	**07-Oct-24**	**12-Mar-26**	**10**
Area 3 - Eastbound - Roadway		**185**	**07-Oct-24**	**23-Jul-25**	**21**
Roadway		**185**	**07-Oct-24**	**23-Jul-25**	**21**
CON3-A3-1010	Area 3- EB - Mobilize to Area 3	10	07-Oct-24	21-Oct-24	0
CON3-A3-1040	Area 3- EB - Traffic barrier shift and temporary pavement markings	2	21-Oct-24	23-Oct-24	21
CON3-A3-1050	Area 3- EB - Install E&S Perimeter Controls	5	23-Oct-24	30-Oct-24	21
CON3-A3-1060	Area 3- EB - Install E&S Inlet Protections	3	30-Oct-24	04-Nov-24	30
CON3-A3-1070	Area 3- EB - Clear and Grub outside widening	12	30-Oct-24	19-Nov-24	21
CON3-A3-1150	Area 3- EB - Strip Topsoil	10	19-Nov-24	06-Dec-24	21
CON3-A3-1180	Area 3- EB - Cut to Fill	15	06-Dec-24	31-Dec-24	21
CON3-A3-1220	Area 3- EB -07 Series Drainage Pipe and Structures	10	31-Dec-24	17-Jan-25	21
CON3-A3-1240	Area 3- EB -08 Series Drainage Pipe and Structures	15	17-Jan-25	11-Feb-25	21
CON3-A3-1320	Area 3- EB -09 Series Drainage Pipe and Structures	20	11-Feb-25	18-Mar-25	21
CON3-A3-1390	Area 3- EB - Slope Grade and Complete Rough Grade	15	18-Mar-25	09-Apr-25	21
CON3-A3-1440	Area 3- EB- Subgrade Stabilization	17	09-Apr-25	02-May-25	21
CON3-A3-1450	Area 3- EB - Fine Grade Roadway and Shoulder Areas	10	09-Apr-25	23-Apr-25	21
CON3-A3-1480	Area 3- EB -Install MB-7F Median Barrier Footing	8	23-Apr-25	05-May-25	21
CON3-A3-1520	Area 3- EB- Install Cement Treated Aggregate Base in Roadway/Shoulder	5	05-May-25	13-May-25	21
CON3-A3-1560	Area 3- EB- Install Underdrain UD-4	5	20-May-25	28-May-25	21
CON3-A3-1570	Area 3- EB - Install Open Graded Drainage Layer	5	28-May-25	04-Jun-25	21
CON3-A3-1600	Area 3- EB- Install Base Asphalt Roadway	10	11-Jun-25	25-Jun-25	21
CON3-A3-1670	Area 3- EB- Install SMA-19.0 Intermediate Asphalt (New Lane)	3	25-Jun-25	30-Jun-25	21
CON3-A3-1680	Area 3 - EB- Form/Pour Throats at DI Structures in MB-7F	8	25-Jun-25	09-Jul-25	21
CON3-A3-1690	Area 3 - EB-- Install IM-19.0 Intermediate Asphalt (Shoulder)	5	30-Jun-25	09-Jul-25	21
CON3-A3-1720	Area 3 - EB- Slipform MB-7F Barrier	5	09-Jul-25	16-Jul-25	21



🟦 Actual Work
🟥 Critical Remaining Work
🟩 Remaining Work
◆ Milestone

SHIRLEY CONTRACTING COMPANY, LLC
BRANCH CIVIL

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
CON3-A3-1730	Area 3 - EB- Install MB-3/GR-2 Guardrail as Required	5	09-Jul-25	16-Jul-25	21
CON3-A3-1750	Area 3 - EB--Final Dress-up of Slopes and Seed	5	16-Jul-25	23-Jul-25	21
CON3-A3-1810	Area 3 - EB- End Stage 3	0		23-Jul-25	21
Retaining Wall and Noise Barrier Construction		62	06-Dec-24	20-Mar-25	44
Retaining Wall EB-06 (RW-3)		40	06-Dec-24	11-Feb-25	44
CON3-A3-1170	Area 3 - EB-06 Form, Pour, Strip	40	06-Dec-24	11-Feb-25	44
Retaining Wall EB-07 (RW-3)		11	11-Feb-25	04-Mar-25	44
CON3-A3-1310	Area 3 -EB-07 Form, Pour, Strip	11	11-Feb-25	04-Mar-25	44
Retaining Wall EB-08 (RW-3)		11	04-Mar-25	20-Mar-25	44
CON3-A3-1360	Area 3 -EB-08 Form, Pour, Strip	11	04-Mar-25	20-Mar-25	44
Area 3 - Westbound -Roadway		196	21-Oct-24	21-Aug-25	0
Roadway		196	21-Oct-24	21-Aug-25	0
CON3-A3-1030	Area 3- WB- Mobilize to Area 3	10	21-Oct-24	04-Nov-24	0
CON3-A3-1100	Area 3- WB- Traffic barrier shift and temporary pavement markings	2	04-Nov-24	07-Nov-24	0
CON3-A3-1110	Area 3 - WB - Install E&S Perimeter Controls	5	07-Nov-24	15-Nov-24	0
CON3-A3-1130	Area 3- WB - Install E&S Inlet Protections	3	15-Nov-24	20-Nov-24	9
CON3-A3-1140	Area 3- WB- Clear and Grub outside widening	12	15-Nov-24	06-Dec-24	0
CON3-A3-1190	Area 3- WB - Strip Topsoil	10	06-Dec-24	23-Dec-24	0
CON3-A3-1210	Area 3 - WB -Cut to Fill	15	23-Dec-24	17-Jan-25	0
CON3-A3-1250	Area 3 - WB -07 Series Drainage Pipe and Structures	10	17-Jan-25	03-Feb-25	6
CON3-A3-1290	Area 3- WB -08 Series Drainage Pipe and Structures	15	03-Feb-25	03-Mar-25	6
CON3-A3-1350	Area 3- WB -09 Series Drainage Pipe and Structures	20	03-Mar-25	01-Apr-25	6
CON3-A3-1420	Area 3- WB - Slope Grade and Complete Rough Grade	15	01-Apr-25	23-Apr-25	6
CON3-A3-1490	Area 3- WB -Subgrade Stabilization	17	23-Apr-25	19-May-25	6
CON3-A3-1510	Area 3- WB- Fine Grade Roadway and Shoulder Areas	10	01-May-25	16-May-25	0
CON3-A3-1550	Area 3- WB-Install MB-7F Median Barrier Footing	8	16-May-25	29-May-25	0
CON3-A3-1580	Area 3 - WB- Install Cement Treated Aggregate Base in Roadway/Shoulde	5	29-May-25	05-Jun-25	0
CON3-A3-1620	Area 3- WB -Install Underdrain UD-4	5	12-Jun-25	19-Jun-25	0
CON3-A3-1630	Area 3 - WB- Install Open Graded Drainage Layer	5	19-Jun-25	26-Jun-25	0
CON3-A3-1700	Area 3 - WB- Install Base Asphalt Roadway	10	07-Jul-25	21-Jul-25	0
CON3-A3-1780	Area 3 - WB - Install SMA-19.0 Intermediate Asphalt (New Lane)	3	21-Jul-25	24-Jul-25	0
CON3-A3-1790	Area 3 - WB -Form/Pour Throats at DI Structures in MB-7F	8	21-Jul-25	31-Jul-25	0
CON3-A3-1820	Area 3 - WB- Install IM-19.0 Intermediate Asphalt (Shoulder)	5	24-Jul-25	31-Jul-25	0
CON3-A3-1830	Area 3 - WB -Slipform MB-7F Barrier	5	31-Jul-25	07-Aug-25	0
CON3-A3-1840	Area 3 - WB - Install MB-3/GR-2 Guardrail as Required	5	31-Jul-25	07-Aug-25	0
CON3-A3-1870	Area 3 -WB- Final Dress-up of Slopes and Seed	5	07-Aug-25	14-Aug-25	0
CON3-A3-1880	Area 3 - WB- End Stage 3	5	14-Aug-25	21-Aug-25	0
Retaining Wall and Noise Barrier Construction		66	17-Jan-25	01-May-25	0
Retaining Wall WB-05 (RW-3)		10	17-Jan-25	03-Feb-25	0
CON3-A3-1230	Area 3- WB-05 Form, Pour, Strip	10	17-Jan-25	03-Feb-25	0
Ground Mounted Noise Barrier "G"		56	03-Feb-25	01-May-25	0
CON3-A3-1280	Area 3 - WB Noise Barrier "G" Excavate/Grade/ Access Ramp	10	03-Feb-25	21-Feb-25	0
CON3-A3-1340	Area 3 - WB Noise Barrier "G" Drilled Shaft Foundations Ramp	25	21-Feb-25	01-Apr-25	0
CON3-A3-1410	Area 3 - WB Noise Barrier "G" Set Post and Pour Ramp	10	01-Apr-25	16-Apr-25	0
CON3-A3-1460	Area 3 - WB Noise Barrier "G" Set Noise Barrier Panels Ramp	11	16-Apr-25	01-May-25	0
Area 3 - Signage & Lighting		91	23-Apr-25	04-Sep-25	127
CON3-A3-1470	Area 3 - Overhead Sign Structures - Installation	40	23-Apr-25	20-Jun-25	127
CON3-A3-1640	Area 3 - Overhead Sign Structures - Hang Panels	15	20-Jun-25	15-Jul-25	163
CON3-A3-1650	Area 3 - Light Poles and Luminaires - Installation	30	20-Jun-25	05-Aug-25	127
CON3-A3-1860	Area 3 - Light Poles and Luminaires - Burn-In	21	05-Aug-25	04-Sep-25	127
B-676 I-64 EBL/WBL over Settlers Landing Road - Phase 2		232	07-Oct-24	29-Sep-25	110
B-676- Eastbound Repairs		68	11-Jun-25	18-Sep-25	117
CON3-A3-1610	B-676- EB - Phase 2- Pier Joint Closures	20	11-Jun-25	11-Jul-25	117
CON3-A3-1740	B-676- EB - Phase 2-Deck Extensions	15	11-Jul-25	01-Aug-25	117
CON3-A3-1850	B-676- EB - Phase 2-Bridge Deck Milling/Repairs/Latex Overlay	15	01-Aug-25	22-Aug-25	117
CON3-A3-1900	B-676- EB - Phase 2-Bridge Deck Grooving	3	22-Aug-25	27-Aug-25	117
CON3-A3-1910	B-676- EB - Phase 2-Approach Excavation/Pedestals/Backfill/Slabs	15	27-Aug-25	18-Sep-25	117
B-676- Westbound Widening		232	07-Oct-24	29-Sep-25	110
CON3-A3-1000	B-676- WB - Phase 2-Abutment Excavation	6	07-Oct-24	15-Oct-24	110
CON3-A3-1020	B-676- WB - Phase 2Abutment Foundations	14	15-Oct-24	04-Nov-24	110
CON3-A3-1080	B-676- WB - Phase 2- Abutment Demolition	5	04-Nov-24	12-Nov-24	149

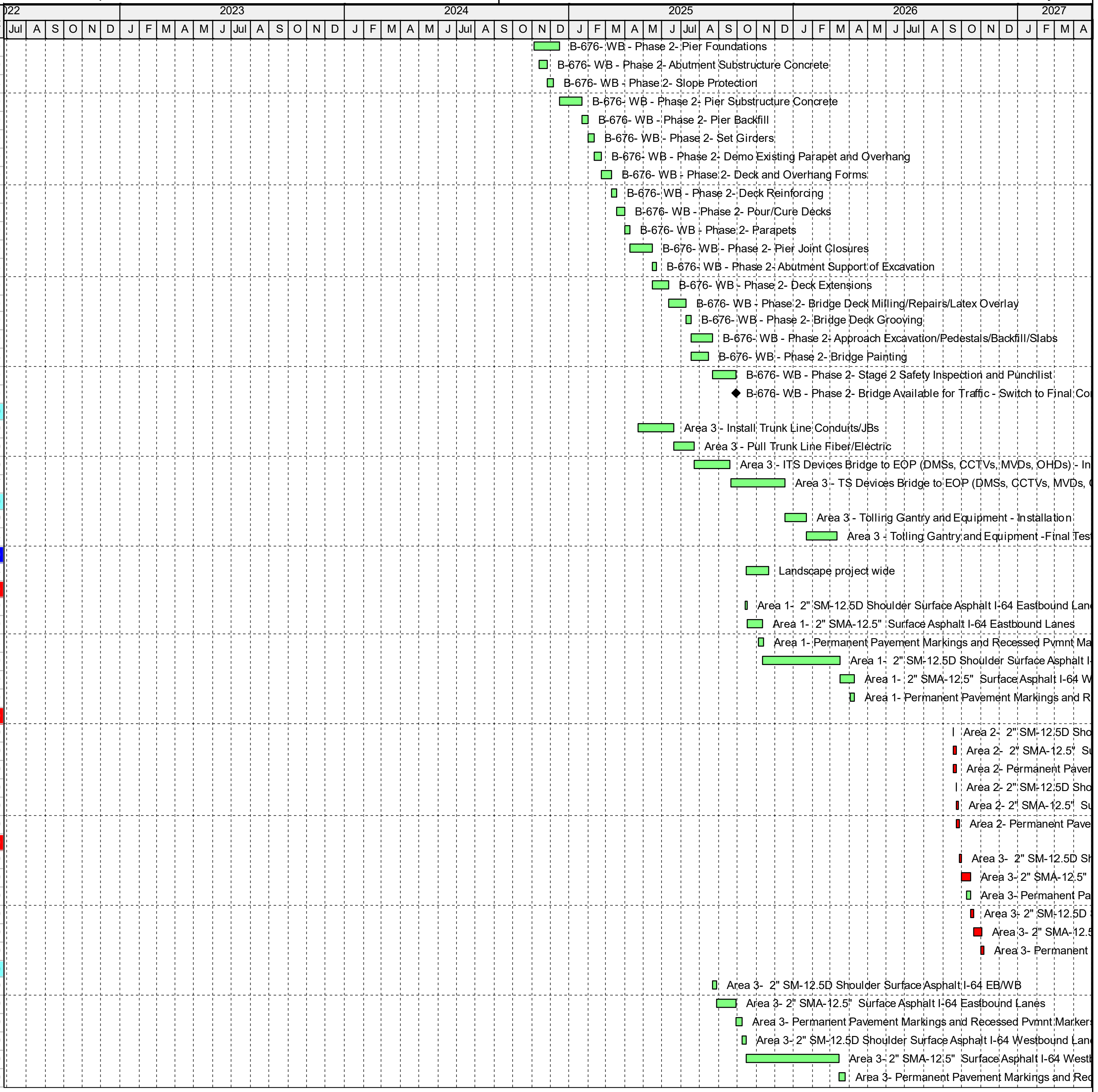


🟦 Actual Work
🟥 Critical Remaining Work
🟩 Remaining Work ◆
◆ Milestone

SHIRLEY CONTRACTING COMPANY, LLC
BRANCH CIVIL®

C00117841DB111- I-64 Hampton Roads Express Lanes (HREL) Segment 4C | 4.6.1 Proposal Schedule | 12- May- 22

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
CON3-A3-1090	B-676- WB - Phase 2- Pier Foundations	24	04-Nov-24	16-Dec-24	110
CON3-A3-1120	B-676- WB - Phase 2- Abutment Substructure Concrete	9	12-Nov-24	26-Nov-24	149
CON3-A3-1160	B-676- WB - Phase 2- Slope Protection	5	26-Nov-24	06-Dec-24	278
CON3-A3-1200	B-676- WB - Phase 2- Pier Substructure Concrete	22	16-Dec-24	21-Jan-25	110
CON3-A3-1260	B-676- WB - Phase 2- Pier Backfill	7	21-Jan-25	31-Jan-25	110
CON3-A3-1270	B-676- WB - Phase 2- Set Girders	5	31-Jan-25	10-Feb-25	110
CON3-A3-1300	B-676- WB - Phase 2- Demo Existing Parapet and Overhang	6	10-Feb-25	21-Feb-25	110
CON3-A3-1330	B-676- WB - Phase 2- Deck and Overhang Forms	9	21-Feb-25	10-Mar-25	110
CON3-A3-1370	B-676- WB - Phase 2- Deck Reinforcing	6	10-Mar-25	18-Mar-25	110
CON3-A3-1380	B-676- WB - Phase 2- Pour/Cure Decks	9	18-Mar-25	31-Mar-25	110
CON3-A3-1400	B-676- WB - Phase 2- Parapets	6	31-Mar-25	09-Apr-25	110
CON3-A3-1430	B-676- WB - Phase 2- Pier Joint Closures	25	09-Apr-25	15-May-25	110
CON3-A3-1530	B-676- WB - Phase 2- Abutment Support of Excavation	5	15-May-25	22-May-25	148
CON3-A3-1540	B-676- WB - Phase 2- Deck Extensions	18	15-May-25	11-Jun-25	110
CON3-A3-1590	B-676- WB - Phase 2- Bridge Deck Milling/Repairs/Latex Overlay	18	11-Jun-25	09-Jul-25	110
CON3-A3-1710	B-676- WB - Phase 2- Bridge Deck Grooving	7	09-Jul-25	18-Jul-25	110
CON3-A3-1760	B-676- WB - Phase 2- Approach Excavation/Pedestals/Backfill/Slabs	25	18-Jul-25	22-Aug-25	110
CON3-A3-1770	B-676- WB - Phase 2- Bridge Painting	20	18-Jul-25	15-Aug-25	115
CON3-A3-1890	B-676- WB - Phase 2- Stage 2 Safety Inspection and Punchlist	25	22-Aug-25	29-Sep-25	110
CON3-A3-1930	B-676- WB - Phase 2- Bridge Available for Traffic - Switch to Final Config	0		29-Sep-25	110
Area 3- ITS Devices Bridge to EOP		**159**	**23-Apr-25**	**18-Dec-25**	**9**
CON3-A3-1500	Area 3 - Install Trunk Line Conduits/JBs	40	23-Apr-25	20-Jun-25	10
CON3-A3-1660	Area 3 - Pull Trunk Line Fiber/Electric	20	20-Jun-25	22-Jul-25	10
CON3-A3-1800	Area 3 - ITS Devices Bridge to EOP (DMSs, CCTVs, MVDs, OHDs) - Instal	42	22-Jul-25	19-Sep-25	10
CON3-A3-1920	Area 3 - TS Devices Bridge to EOP (DMSs, CCTVs, MVDs, OHDs) - Testin	90	20-Sep-25	18-Dec-25	17
Area 3- Tolling and Gantry Equipment		**49**	**18-Dec-25**	**12-Mar-26**	**10**
CON3-A3-1940	Area 3 - Tolling Gantry and Equipment - Installation	20	18-Dec-25	21-Jan-26	9
CON3-A3-1950	Area 3 - Tolling Gantry and Equipment -Final Testing & Finishes	50	22-Jan-26	12-Mar-26	14
Stage 4 - Final Pavement and Open Lanes		**289**	**21-Aug-25**	**06-Nov-26**	**0**
LAN-1000	Landscape project wide	25	15-Oct-25	20-Nov-25*	4
Area 1 - 658+73 to 721+13 (6,240 LF)		**41**	**13-Oct-25**	**10-Apr-26**	**109**
CON4-A1-1000	Area 1- 2" SM-12.5D Shoulder Surface Asphalt I-64 Eastbound Lanes	4	13-Oct-25	17-Oct-25	109
CON4-A1-1010	Area 1- 2" SMA-12.5" Surface Asphalt I-64 Eastbound Lanes	16	17-Oct-25	11-Nov-25	109
CON4-A1-1020	Area 1- Permanent Pavement Markings and Recessed Pvmnt Markers EB	5	04-Nov-25	13-Nov-25	124
CON4-A1-1030	Area 1- 2" SM-12.5D Shoulder Surface Asphalt I-64 Westbound Lanes	4	11-Nov-25	17-Mar-26	109
CON4-A1-1040	Area 1- 2" SMA-12.5" Surface Asphalt I-64 Westbound Lanes	16	17-Mar-26	09-Apr-26	109
CON4-A1-1050	Area 1- Permanent Pavement Markings and Recessed Pvmnt Markers WB	5	03-Apr-26	10-Apr-26	109
Area 2 - 721+13 to 748+22 (2,709 LF)		**7**	**17-Sep-26**	**28-Sep-26**	**0**
CON4-A2-1000	Area 2- 2" SM-12.5D Shoulder Surface Asphalt I-64 Eastbound Lanes	1	17-Sep-26	18-Sep-26	0
CON4-A2-1010	Area 2- 2" SMA-12.5" Surface Asphalt I-64 Eastbound Lanes	2	18-Sep-26	22-Sep-26	0
CON4-A2-1020	Area 2- Permanent Pavement Markings and Recessed Pvmnt Markers EB	3	18-Sep-26	23-Sep-26	0
CON4-A2-1030	Area 2- 2" SM-12.5D Shoulder Surface Asphalt I-64 Westbound Lanes	1	22-Sep-26	23-Sep-26	0
CON4-A2-1040	Area 2- 2" SMA-12.5" Surface Asphalt I-64 Westbound Lanes	2	23-Sep-26	25-Sep-26	0
CON4-A2-1050	Area 2- Permanent Pavement Markings and Recessed Pvmnt Markers WB	3	23-Sep-26	28-Sep-26	0
Area 3 - 748+22 TO 785+72 (3,750 LF)		**289**	**21-Aug-25**	**06-Nov-26**	**0**
CON4-A3-1010	Area 3- 2" SM-12.5D Shoulder Surface Asphalt I-64 Eastbound Lanes	3	28-Sep-26	01-Oct-26	0
CON4-A3-1020	Area 3- 2" SMA-12.5" Surface Asphalt I-64 Eastbound Lanes	10	01-Oct-26	15-Oct-26	0
CON4-A3-1030	Area 3- Permanent Pavement Markings and Recessed Pvmnt Markers EB	5	09-Oct-26	16-Oct-26	10
CON4-A3-1040	Area 3- 2" SM-12.5D Shoulder Surface Asphalt I-64 Westbound Lanes	3	15-Oct-26	20-Oct-26	0
CON4-A3-1050	Area 3- 2" SMA-12.5" Surface Asphalt I-64 Westbound Lanes	10	20-Oct-26	03-Nov-26	0
CON4-A3-1060	Area 3- Permanent Pavement Markings and Recessed Pvmnt Markers WB	5	02-Nov-26	06-Nov-26	0
Surface Paving to Interim Milestone		**66**	**21-Aug-25**	**26-Mar-26**	**0**
CON4-A3-1070	Area 3- 2" SM-12.5D Shoulder Surface Asphalt I-64 EB/WB	6	21-Aug-25	29-Aug-25	0
CON4-A3-1080	Area 3- 2" SMA-12.5" Surface Asphalt I-64 Eastbound Lanes	20	29-Aug-25	29-Sep-25	0
CON4-A3-1090	Area 3- Permanent Pavement Markings and Recessed Pvmnt Markers EB	6	29-Sep-25	08-Oct-25	0
CON4-A3-1100	Area 3- 2" SM-12.5D Shoulder Surface Asphalt I-64 Westbound Lanes	6	08-Oct-25	16-Oct-25	0
CON4-A3-1110	Area 3- 2" SMA-12.5" Surface Asphalt I-64 Westbound Lanes	20	16-Oct-25	16-Mar-26	0
CON4-A3-1120	Area 3- Permanent Pavement Markings and Recessed Pvmnt Markers WB	8	16-Mar-26	26-Mar-26	0



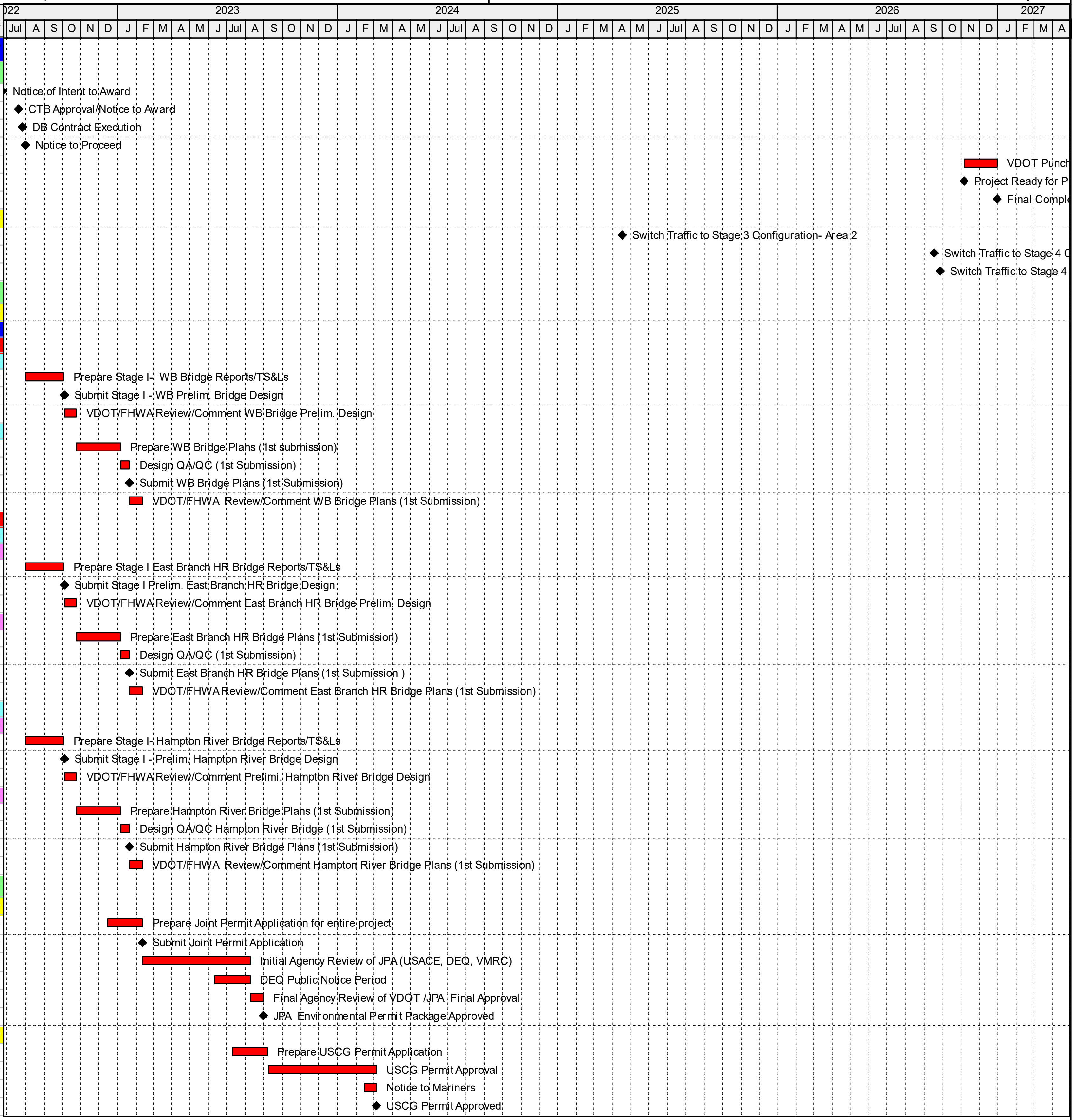
🟦 Actual Work 🟥 Critical Remaining Work
🟩 Remaining Work ◆ ◆ Milestone

C00117841DB111- I-64 Hampton Roads Express Lanes (HREL) Segment 4C

4.6.1 Proposal Schedule - Critical Path

12- May- 22

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
I-64 HAMPTON ROADS EXPRESS LANES (HREL) SEGMENT 4C- PROPC		1068	24-Jun-22	30-Dec-26	0
SCHEDULE MILESTONES		1068	24-Jun-22	30-Dec-26	0
MLS-1000	Notice of Intent to Award	0	24-Jun-22*		0
MLS-1010	CTB Approval/Notice to Award	0	20-Jul-22*		0
MLS-1020	DB Contract Execution	0	27-Jul-22*		0
MLS-1040	Notice to Proceed	0	01-Aug-22*		0
MLS-1080	VDOT Punchlist Inspection	30	06-Nov-26	30-Dec-26	0
MLS-1090	Project Ready for Punchlist Inspection	0	06-Nov-26		0
MLS-1100	Final Completion	0		30-Dec-26*	0
Construction Key Dates		348	17-Apr-25	28-Sep-26	0
MLS-1240	Switch Traffic to Stage 3 Configuration- Area 2	0	17-Apr-25		0
MLS-1260	Switch Traffic to Stage 4 Configuration - Area 2	0	18-Sep-26		0
MLS-1270	Switch Traffic to Stage 4 Configuration - Area 3 Remainder	0	28-Sep-26		0
DESIGN		123	01-Aug-22	10-Feb-23	0
Final Design		123	01-Aug-22	10-Feb-23	0
Bridges Design		123	01-Aug-22	10-Feb-23	0
Westbound Bridges		123	01-Aug-22	10-Feb-23	0
Stage I- Preliminary Submissions		59	01-Aug-22	24-Oct-22	0
DGN-1380	Prepare Stage I- WB Bridge Reports/TS&Ls	45	01-Aug-22	03-Oct-22	0
DGN-1510	Submit Stage I - WB Prelim. Bridge Design	0	04-Oct-22		0
DGN-1520	VDOT/FHWA Review/Comment WB Bridge Prelim. Design	21	04-Oct-22	24-Oct-22	0
First Submission		64	24-Oct-22	10-Feb-23	0
DGN-1650	Prepare WB Bridge Plans (1st submission)	50	24-Oct-22	06-Jan-23	0
DGN-2050	Design QA/QC (1st Submission)	10	06-Jan-23	20-Jan-23	0
DGN-2140	Submit WB Bridge Plans (1st Submission)	0	20-Jan-23		0
DGN-2200	VDOT/FHWA Review/Comment WB Bridge Plans (1st Submission)	21	21-Jan-23	10-Feb-23	0
Eastbound Bridges		123	01-Aug-22	10-Feb-23	0
East Branch Hampton River Bridge		123	01-Aug-22	10-Feb-23	0
Stage I- Preliminary Submissions		59	01-Aug-22	24-Oct-22	0
DGN-1400	Prepare Stage I East Branch HR Bridge Reports/TS&Ls	45	01-Aug-22	03-Oct-22	0
DGN-1550	Submit Stage I Prelim. East Branch HR Bridge Design	0	04-Oct-22		0
DGN-1560	VDOT/FHWA Review/Comment East Branch HR Bridge Prelim. Design	21	04-Oct-22	24-Oct-22	0
First Submission		64	24-Oct-22	10-Feb-23	0
DGN-1690	Prepare East Branch HR Bridge Plans (1st Submission)	50	24-Oct-22	06-Jan-23	0
DGN-2070	Design QA/QC (1st Submission)	10	06-Jan-23	20-Jan-23	0
DGN-2160	Submit East Branch HR Bridge Plans (1st Submission)	0	20-Jan-23		0
DGN-2220	VDOT/FHWA Review/Comment East Branch HR Bridge Plans (1st Submis	21	21-Jan-23	10-Feb-23	0
Hampton River Bridge		123	01-Aug-22	10-Feb-23	0
Stage I- Preliminary Submissions		59	01-Aug-22	24-Oct-22	0
DGN-1390	Prepare Stage I- Hampton River Bridge Reports/TS&Ls	45	01-Aug-22	03-Oct-22	0
DGN-1530	Submit Stage I - Prelim. Hampton River Bridge Design	0	04-Oct-22		0
DGN-1540	VDOT/FHWA Review/Comment Prelimi. Hampton River Bridge Design	21	04-Oct-22	24-Oct-22	0
First Submission		64	24-Oct-22	10-Feb-23	0
DGN-1670	Prepare Hampton River Bridge Plans (1st Submission)	50	24-Oct-22	06-Jan-23	0
DGN-2060	Design QA/QC Hampton River Bridge (1st Submission)	10	06-Jan-23	20-Jan-23	0
DGN-2150	Submit Hampton River Bridge Plans (1st Submission)	0	20-Jan-23		0
DGN-2210	VDOT/FHWA Review/Comment Hampton River Bridge Plans (1st Submis	21	21-Jan-23	10-Feb-23	0
ENVIRONMENTAL PERMITTING		283	14-Dec-22	05-Mar-24	0
Wetlands and Waters Permitting		168	14-Dec-22	30-Aug-23	0
ENV-1200	Prepare Joint Permit Application for entire project	40	14-Dec-22	10-Feb-23	0
ENV-1290	Submit Joint Permit Application	0	10-Feb-23		0
ENV-1300	Initial Agency Review of JPA (USACE, DEQ, VMRC)	180	11-Feb-23	09-Aug-23	0
ENV-1450	DEQ Public Notice Period	60	11-Jun-23	09-Aug-23	0
ENV-1480	Final Agency Review of VDOT /JPA Final Approval	21	10-Aug-23	30-Aug-23	0
ENV-1510	JPA Environmental Permit Package Approved	0		30-Aug-23	0
U.S. Coast Guard Bridge Permit		240	10-Jul-23	05-Mar-24	0
ENV-1460	Prepare USCG Permit Application	60	10-Jul-23	07-Sep-23	0
ENV-1520	USCG Permit Approval	180	08-Sep-23	05-Mar-24	0
ENV-1530	Notice to Mariners	21	14-Feb-24	05-Mar-24	0
ENV-1540	USCG Permit Approved	0		05-Mar-24	0



🟦 Actual Work
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🟩 Remaining Work ◆
◆ Milestone

SHIRLEY CONTRACTING COMPANY, LLC
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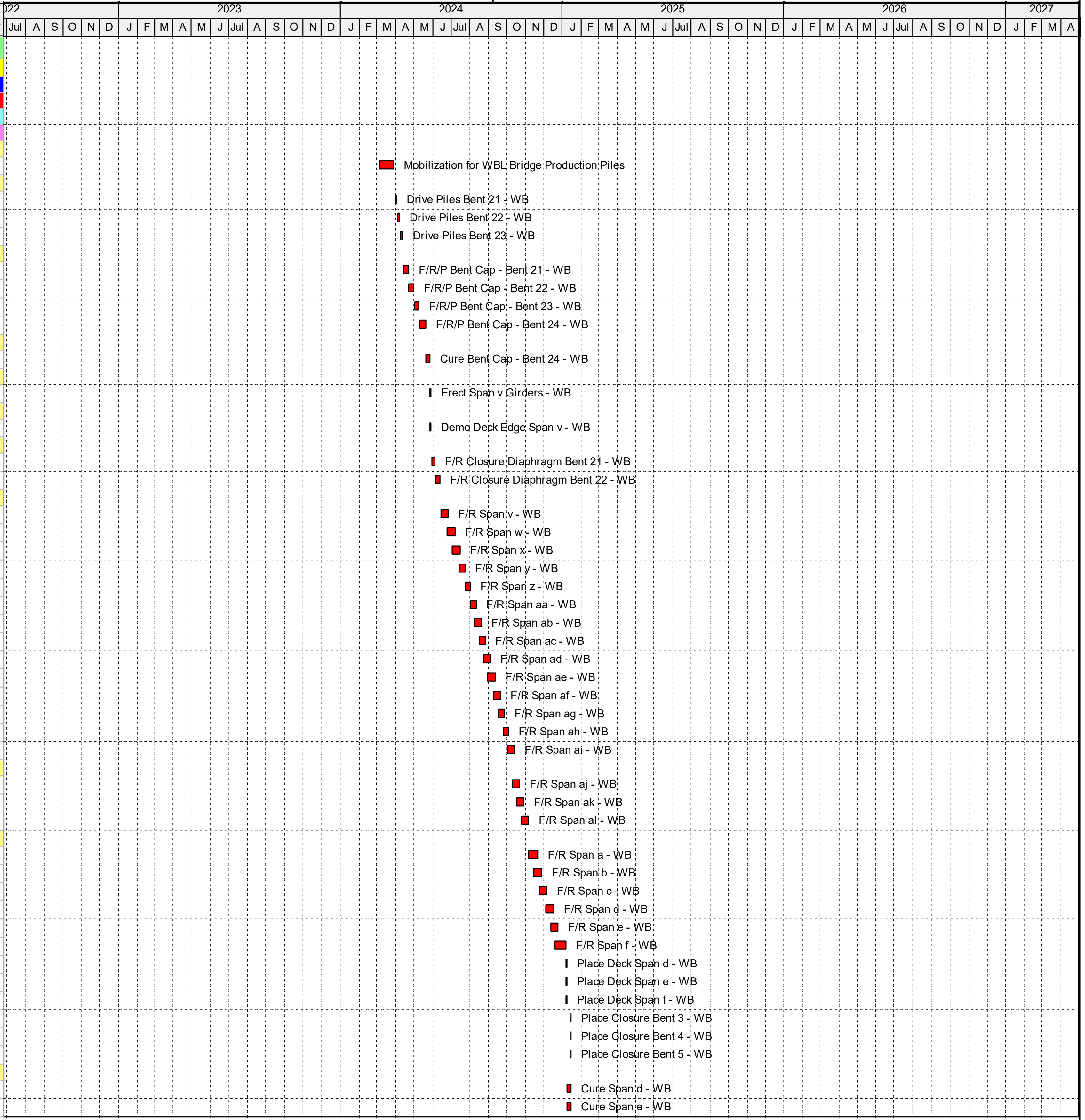
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
CONSTRUCTION		641	06-Mar-24	06-Nov-26	0
Construction		641	06-Mar-24	06-Nov-26	0
Stage 2 - I-64 Reconstruct Median & 1st Phase of the Bridges		254	06-Mar-24	31-Mar-25	0
Area 2 - 721+13 to 748+22 (2,709 LF)		254	06-Mar-24	31-Mar-25	0
Westbound Bridge		254	06-Mar-24	31-Mar-25	0
WBL Bridge Widening		254	06-Mar-24	31-Mar-25	0
Mobilization		15	06-Mar-24	29-Mar-24	0
1BWMO1030	Mobilization for WBL Bridge Production Piles	15	06-Mar-24	29-Mar-24	0
Piling Boxwood		9	01-Apr-24	12-Apr-24	0
1WWPD1000	Drive Piles Bent 21 - WB	3	01-Apr-24	03-Apr-24	0
1WWPD1005	Drive Piles Bent 22 - WB	3	04-Apr-24	08-Apr-24	0
1WWPD1010	Drive Piles Bent 23 - WB	3	10-Apr-24	12-Apr-24	0
Bent Cap Boxwood		22	15-Apr-24	20-May-24	0
1WWBC1160	F/R/P Bent Cap - Bent 21 - WB	5	15-Apr-24	22-Apr-24	0
1WWBC1170	F/R/P Bent Cap - Bent 22 - WB	6	23-Apr-24	01-May-24	0
1WWBC1180	F/R/P Bent Cap - Bent 23 - WB	5	02-May-24	09-May-24	0
1WWBC1190	F/R/P Bent Cap - Bent 24 - WB	6	10-May-24	20-May-24	0
Cure - Bent Cap		7	21-May-24	27-May-24	0
1WWBC1195	Cure Bent Cap - Bent 24 - WB	7	21-May-24	27-May-24	0
Girders Boxwood		1	28-May-24	28-May-24	0
1WWGD1210	Erect Span v Girders - WB	1	28-May-24	28-May-24	0
Demo Deck Edge Boxwood		2	28-May-24	29-May-24	0
1WWGD1380	Demo Deck Edge Span v - WB	2	28-May-24	29-May-24	0
Diaphragms Boxwood		10	30-May-24	13-Jun-24	0
1WWDA1210	F/R Closure Diaphragm Bent 21 - WB	5	30-May-24	05-Jun-24	0
1WWDA1220	F/R Closure Diaphragm Bent 22 - WB	5	07-Jun-24	13-Jun-24	0
Decks Boxwood		78	14-Jun-24	14-Oct-24	0
1WWDK1210	F/R Span v - WB	8	14-Jun-24	26-Jun-24	0
1WWDK1220	F/R Span w - WB	8	25-Jun-24	08-Jul-24	0
1WWDK1230	F/R Span x - WB	8	03-Jul-24	16-Jul-24	0
1WWDK1240	F/R Span y - WB	8	15-Jul-24	25-Jul-24	0
1WWDK1250	F/R Span z - WB	8	24-Jul-24	02-Aug-24	0
1WWDK1260	F/R Span aa - WB	8	01-Aug-24	12-Aug-24	0
1WWDK1270	F/R Span ab - WB	8	08-Aug-24	20-Aug-24	0
1WWDK1280	F/R Span ac - WB	8	16-Aug-24	27-Aug-24	0
1WWDK1290	F/R Span ad - WB	8	23-Aug-24	04-Sep-24	0
1WWDK1300	F/R Span ae - WB	8	30-Aug-24	12-Sep-24	0
1WWDK1310	F/R Span af - WB	8	09-Sep-24	20-Sep-24	0
1WWDK1320	F/R Span ag - WB	8	17-Sep-24	27-Sep-24	0
1WWDK1330	F/R Span ah - WB	8	25-Sep-24	04-Oct-24	0
1WWDK1340	F/R Span ai - WB	8	02-Oct-24	14-Oct-24	0
Decks East Branch Hampton River Bridge		18	10-Oct-24	05-Nov-24	0
1WWDK1350	F/R Span aj - WB	8	10-Oct-24	21-Oct-24	0
1WWDK1360	F/R Span ak - WB	8	17-Oct-24	29-Oct-24	0
1WWDK1370	F/R Span al - WB	8	25-Oct-24	05-Nov-24	0
Decks River Street		38	06-Nov-24	15-Jan-25	0
1WWDK1000	F/R Span a - WB	8	06-Nov-24	20-Nov-24	0
1WWDK1010	F/R Span b - WB	8	15-Nov-24	27-Nov-24	0
1WWDK1020	F/R Span c - WB	8	25-Nov-24	06-Dec-24	0
1WWDK1030	F/R Span d - WB	8	04-Dec-24	17-Dec-24	0
1WWDK1040	F/R Span e - WB	8	13-Dec-24	24-Dec-24	0
1WWDK1050	F/R Span f - WB	8	20-Dec-24	06-Jan-25	0
1WWDK2200	Place Deck Span d - WB	1	07-Jan-25	07-Jan-25	0
1WWDK2210	Place Deck Span e - WB	1	07-Jan-25	07-Jan-25	0
1WWDK2220	Place Deck Span f - WB	1	07-Jan-25	07-Jan-25	0
1WWDK1810	Place Closure Bent 3 - WB	1	15-Jan-25	15-Jan-25	0
1WWDK1820	Place Closure Bent 4 - WB	1	15-Jan-25	15-Jan-25	0
1WWDK1830	Place Closure Bent 5 - WB	1	15-Jan-25	15-Jan-25	0
Decks Cure		7	08-Jan-25	14-Jan-25	0
1WWDK1410	Cure Span d - WB	7	08-Jan-25	14-Jan-25	0
1WWDK1420	Cure Span e - WB	7	08-Jan-25	14-Jan-25	0



🟦 Actual Work
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◆ Milestone

SHIRLEY CONTRACTING COMPANY, LLC
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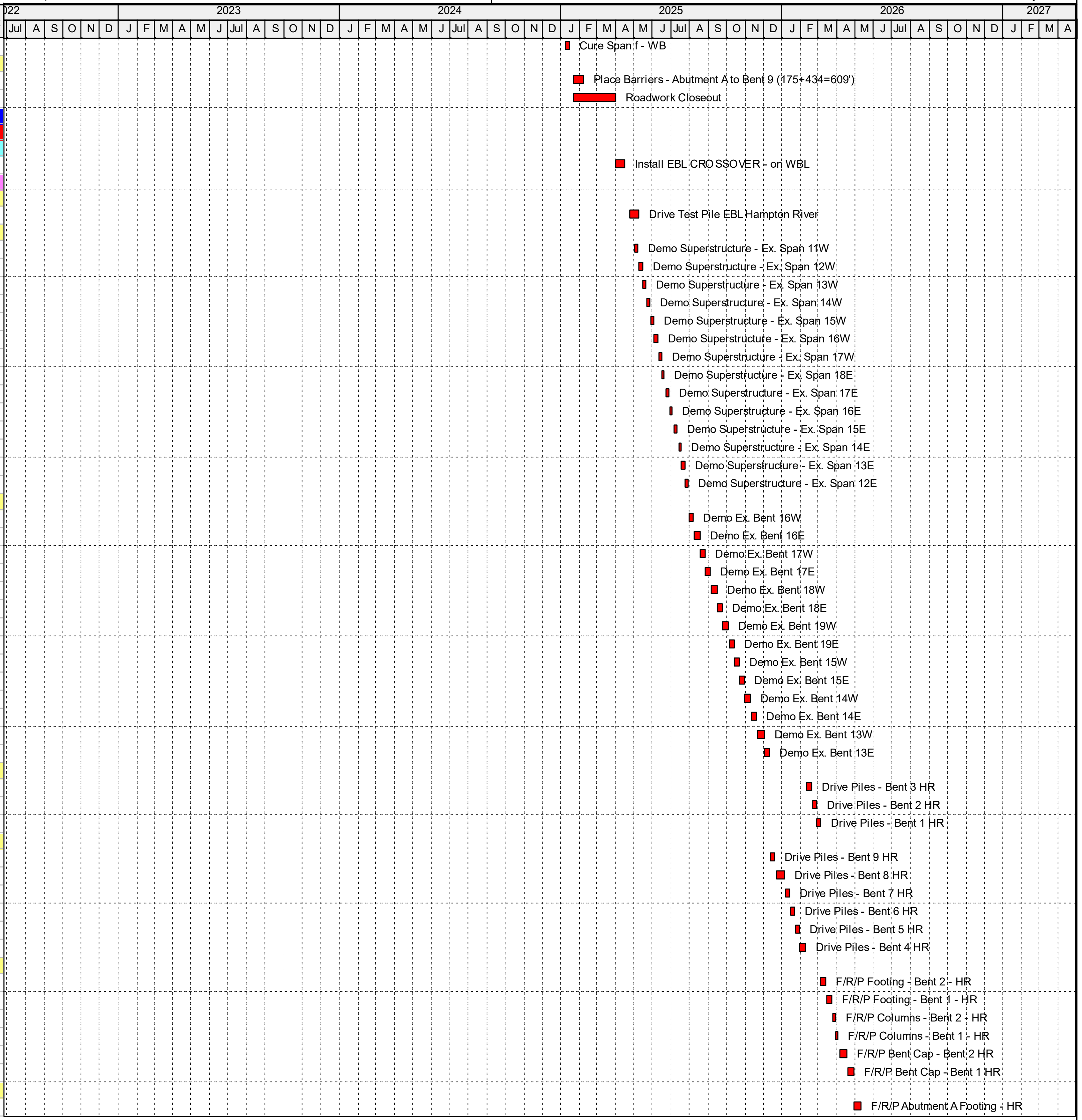
C00117841DB111- I-64 Hampton Roads Express Lanes (HREL) Segment 4C

4.6.1 Proposal Schedule - Critical Path

12- May- 22

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
1WWDK1430	Cure Span f - WB	7	08-Jan-25	14-Jan-25	0
Barrier / Soundwall / Grooving / Stripe / Roadwork		44	21-Jan-25	31-Mar-25	0
1WWDK1760	Place Barriers - Abutment A to Bent 9 (175+434=609')	12	21-Jan-25	06-Feb-25	0
1WWDK2570	Roadwork Closeout	44	21-Jan-25	31-Mar-25	0
Stage 3 - I-64 outside Widening / Noisewalls & 2nd Phase of Bridges		353	01-Apr-25	18-Sep-26	0
Area 2 - 721+13 to 748+22 (2,709 LF)		353	01-Apr-25	18-Sep-26	0
Eastbound Bridges		353	01-Apr-25	18-Sep-26	0
1WWDK3000	Install EBL CROSSOVER - on WBL	10	01-Apr-25	15-Apr-25	0
EB Hampton River Bridge		336	25-Apr-25	18-Sep-26	0
Test Piles		10	25-Apr-25	09-May-25	0
1RETP1000	Drive Test Pile EBL Hampton River	10	25-Apr-25	09-May-25	0
Demolition Superstructure - Hampton River		56	02-May-25	30-Jul-25	0
1REDM2190	Demo Superstructure - Ex. Span 11W	4	02-May-25	07-May-25	0
1REDM2210	Demo Superstructure - Ex. Span 12W	4	09-May-25	15-May-25	0
1REDM2230	Demo Superstructure - Ex. Span 13W	4	16-May-25	21-May-25	0
1REDM2250	Demo Superstructure - Ex. Span 14W	4	22-May-25	28-May-25	0
1REDM2270	Demo Superstructure - Ex. Span 15W	4	29-May-25	03-Jun-25	0
1REDM2290	Demo Superstructure - Ex. Span 16W	4	04-Jun-25	09-Jun-25	0
1REDM2310	Demo Superstructure - Ex. Span 17W	4	11-Jun-25	16-Jun-25	0
1REDM2340	Demo Superstructure - Ex. Span 18E	4	17-Jun-25	20-Jun-25	0
1REDM2330	Demo Superstructure - Ex. Span 17E	4	23-Jun-25	27-Jun-25	0
1REDM2320	Demo Superstructure - Ex. Span 16E	4	30-Jun-25	03-Jul-25	0
1REDM2300	Demo Superstructure - Ex. Span 15E	4	07-Jul-25	11-Jul-25	0
1REDM2280	Demo Superstructure - Ex. Span 14E	4	14-Jul-25	17-Jul-25	0
1REDM2260	Demo Superstructure - Ex. Span 13E	4	18-Jul-25	24-Jul-25	0
1REDM2240	Demo Superstructure - Ex. Span 12E	4	25-Jul-25	30-Jul-25	0
Demolition Substructure - Hampton River		84	31-Jul-25	11-Dec-25	0
1REDM3220	Demo Ex. Bent 16W	6	31-Jul-25	07-Aug-25	0
1REDM3230	Demo Ex. Bent 16E	6	08-Aug-25	18-Aug-25	0
1REDM3240	Demo Ex. Bent 17W	6	19-Aug-25	26-Aug-25	0
1REDM3250	Demo Ex. Bent 17E	6	27-Aug-25	04-Sep-25	0
1REDM3260	Demo Ex. Bent 18W	6	05-Sep-25	15-Sep-25	0
1REDM3270	Demo Ex. Bent 18E	6	16-Sep-25	23-Sep-25	0
1REDM3280	Demo Ex. Bent 19W	6	24-Sep-25	03-Oct-25	0
1REDM3290	Demo Ex. Bent 19E	6	06-Oct-25	13-Oct-25	0
1REDM3200	Demo Ex. Bent 15W	6	14-Oct-25	22-Oct-25	0
1REDM3210	Demo Ex. Bent 15E	6	23-Oct-25	30-Oct-25	0
1REDM3180	Demo Ex. Bent 14W	6	31-Oct-25	10-Nov-25	0
1REDM3190	Demo Ex. Bent 14E	6	11-Nov-25	20-Nov-25	0
1REDM3160	Demo Ex. Bent 13W	6	21-Nov-25	02-Dec-25	0
1REDM3170	Demo Ex. Bent 13E	6	03-Dec-25	11-Dec-25	0
Piling River Street		16	10-Feb-26	05-Mar-26	0
1REPD1030	Drive Piles - Bent 3 HR	6	10-Feb-26	19-Feb-26	0
1REPD1020	Drive Piles - Bent 2 HR	5	20-Feb-26	26-Feb-26	0
1REPD1010	Drive Piles - Bent 1 HR	5	27-Feb-26	05-Mar-26	0
Piling Hampton River		33	12-Dec-25	09-Feb-26	0
1REPD1090	Drive Piles - Bent 9 HR	5	12-Dec-25	19-Dec-25	0
1REPD1080	Drive Piles - Bent 8 HR	6	22-Dec-25	05-Jan-26	0
1REPD1070	Drive Piles - Bent 7 HR	5	07-Jan-26	13-Jan-26	0
1REPD1060	Drive Piles - Bent 6 HR	6	15-Jan-26	22-Jan-26	0
1REPD1050	Drive Piles - Bent 5 HR	5	23-Jan-26	29-Jan-26	0
1REPD1040	Drive Piles - Bent 4 HR	6	30-Jan-26	09-Feb-26	0
Bent Cap		33	06-Mar-26	29-Apr-26	0
1REBC1200	F/R/P Footing - Bent 2 - HR	5	06-Mar-26	13-Mar-26	0
1REBC1210	F/R/P Footing - Bent 1 - HR	5	16-Mar-26	23-Mar-26	0
1REBC1220	F/R/P Columns - Bent 2 - HR	4	25-Mar-26	30-Mar-26	0
1REBC1230	F/R/P Columns - Bent 1 - HR	4	31-Mar-26	03-Apr-26	0
1REBC1090	F/R/P Bent Cap - Bent 2 HR	8	06-Apr-26	17-Apr-26	0
1REBC1080	F/R/P Bent Cap - Bent 1 HR	7	20-Apr-26	29-Apr-26	0
Abutments		45	30-Apr-26	13-Jul-26	0
1REAB1060	F/R/P Abutment A Footing - HR	7	30-Apr-26	11-May-26	0



🟦 Actual Work	🟥 Critical Remaining Work
🟩 Remaining Work ◆	◆ Milestone

SHIRLEY CONTRACTING COMPANY, LLC

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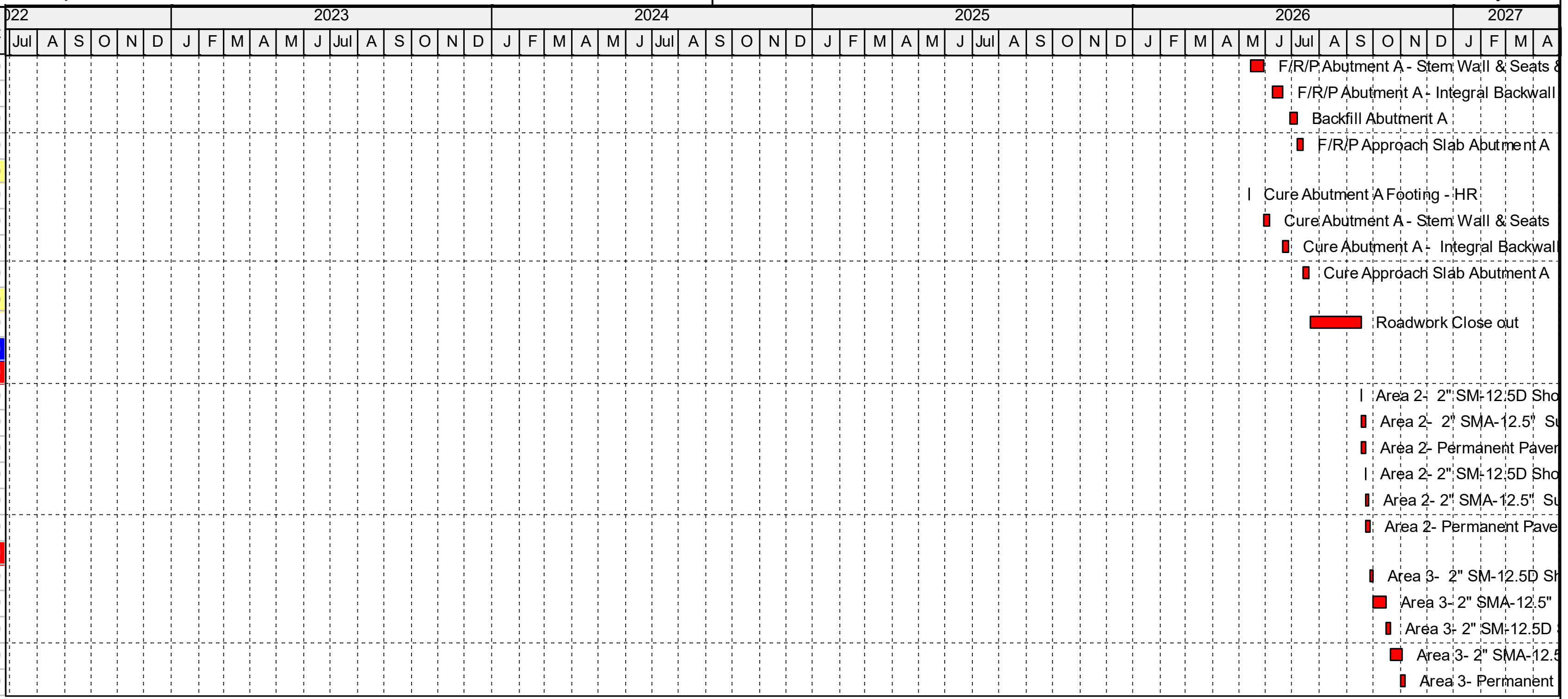
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
1REAB1080	F/R/P Abutment A - Stem Wall & Seats & Wingwall	10	14-May-26	29-May-26	0
1REAB1100	F/R/P Abutment A - Integral Backwall	8	08-Jun-26	19-Jun-26	0
1REAB1120	Backfill Abutment A	5	29-Jun-26	06-Jul-26	0
1REAB1130	F/R/P Approach Slab Abutment A	4	07-Jul-26	13-Jul-26	0
Cure Abutments		**70**	**12-May-26**	**20-Jul-26**	**0**
1REAB1070	Cure Abutment A Footing - HR	2	12-May-26	13-May-26	0
1REAB1090	Cure Abutment A - Stem Wall & Seats	7	30-May-26	05-Jun-26	0
1REAB1110	Cure Abutment A - Integral Backwall	7	20-Jun-26	26-Jun-26	0
1REAB1140	Cure Approach Slab Abutment A	7	14-Jul-26	20-Jul-26	0
Barrier / Soundwall / Gooving / Stripe		**40**	**22-Jul-26**	**18-Sep-26**	**0**
1REDA2690	Roadwork Close out	40	22-Jul-26	18-Sep-26	0
Stage 4 - Final Pavement and Open Lanes		**35**	**17-Sep-26**	**06-Nov-26**	**0**
Area 2 - 721+13 to 748+22 (2,709 LF)		**7**	**17-Sep-26**	**28-Sep-26**	**0**
CON4-A2-1000	Area 2- 2" SM-12.5D Shoulder Surface Asphalt I-64 Eastbound Lanes	1	17-Sep-26	18-Sep-26	0
CON4-A2-1010	Area 2- 2" SMA-12.5" Surface Asphalt I-64 Eastbound Lanes	2	18-Sep-26	22-Sep-26	0
CON4-A2-1020	Area 2- Permanent Pavement Markings and Recessed Pvmnt Markers EB	3	18-Sep-26	23-Sep-26	0
CON4-A2-1030	Area 2- 2" SM-12.5D Shoulder Surface Asphalt I-64 Westbound Lanes	1	22-Sep-26	23-Sep-26	0
CON4-A2-1040	Area 2- 2" SMA-12.5" Surface Asphalt I-64 Westbound Lanes	2	23-Sep-26	25-Sep-26	0
CON4-A2-1050	Area 2- Permanent Pavement Markings and Recessed Pvmnt Markers WB	3	23-Sep-26	28-Sep-26	0
Area 3 - 748+22 TO 785+72 (3,750 LF)		**28**	**28-Sep-26**	**06-Nov-26**	**0**
CON4-A3-1010	Area 3- 2" SM-12.5D Shoulder Surface Asphalt I-64 Eastbound Lanes	3	28-Sep-26	01-Oct-26	0
CON4-A3-1020	Area 3- 2" SMA-12.5" Surface Asphalt I-64 Eastbound Lanes	10	01-Oct-26	15-Oct-26	0
CON4-A3-1040	Area 3- 2" SM-12.5D Shoulder Surface Asphalt I-64 Westbound Lanes	3	15-Oct-26	20-Oct-26	0
CON4-A3-1050	Area 3- 2" SMA-12.5" Surface Asphalt I-64 Westbound Lanes	10	20-Oct-26	03-Nov-26	0
CON4-A3-1060	Area 3- Permanent Pavement Markings and Recessed Pvmnt Markers WB	5	02-Nov-26	06-Nov-26	0



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