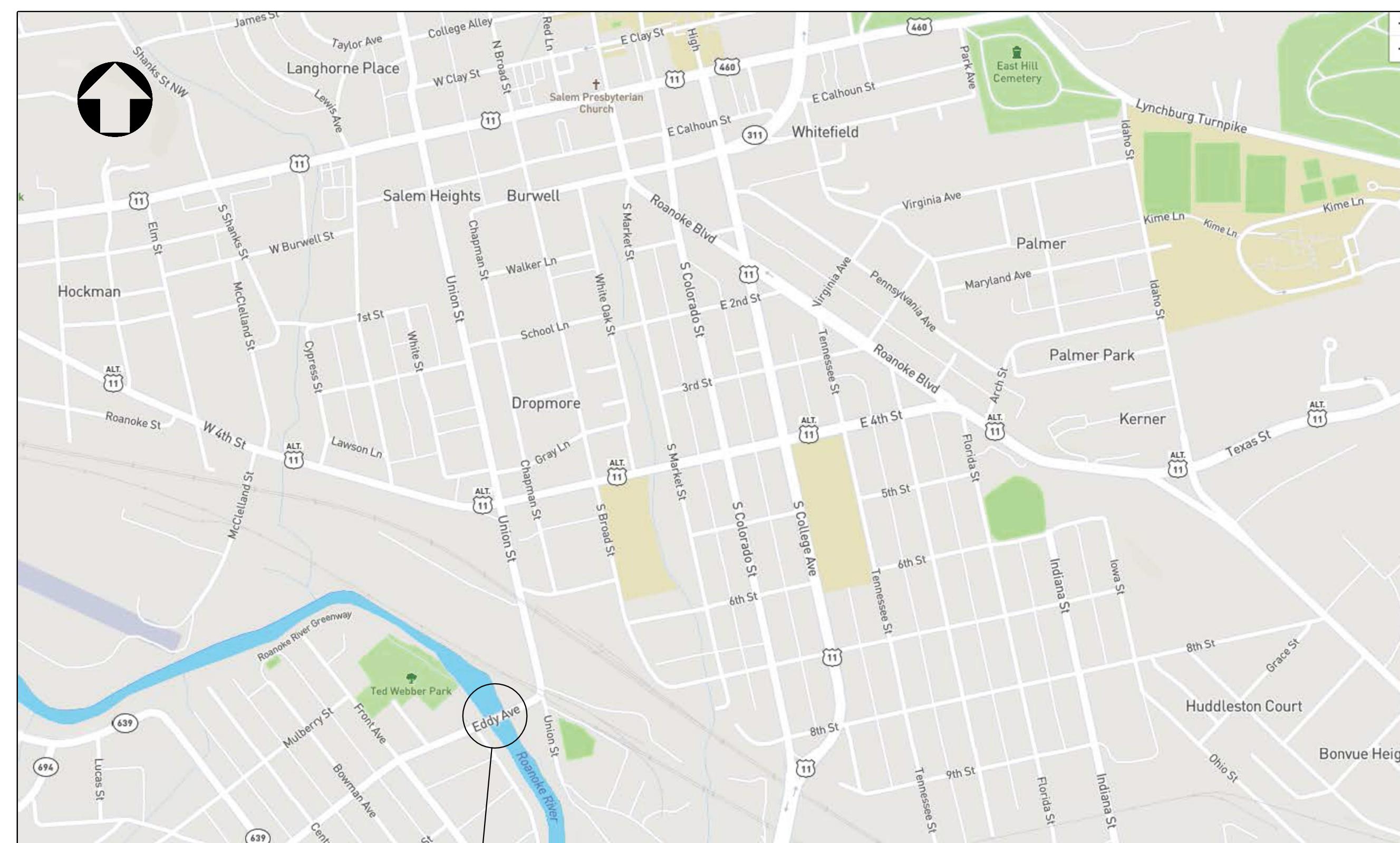




# CITY OF SALEM, VIRGINIA

## PROPOSED BRIDGE REPAIRS ON EDDY AVENUE OVER ROANOKE RIVER



### GENERAL CONSTRUCTION NOTE:

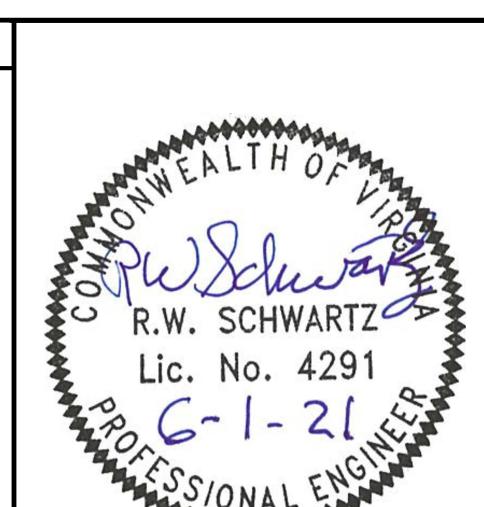
THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATIONS, VDOT ROAD AND BRIDGE SPECIFICATIONS DATED 2020 AND CURRENT REVISIONS AND VDOT ROAD AND BRIDGE STANDARDS, 2016 AND CURRENT REVISIONS.

—	EXISTING OBJECT LINES
—	PROPOSED OBJECT LINES
—	EXISTING REINF. STEEL
—	PROPOSED REINF. STEEL
—	CUTTING PLANE LINE
—	CENTER LINE
—	HIDDEN LINES

PROJECT SITE  
STR. NO. 8007

LOCATION MAP  
Not to Scale

PLANS REVISED	

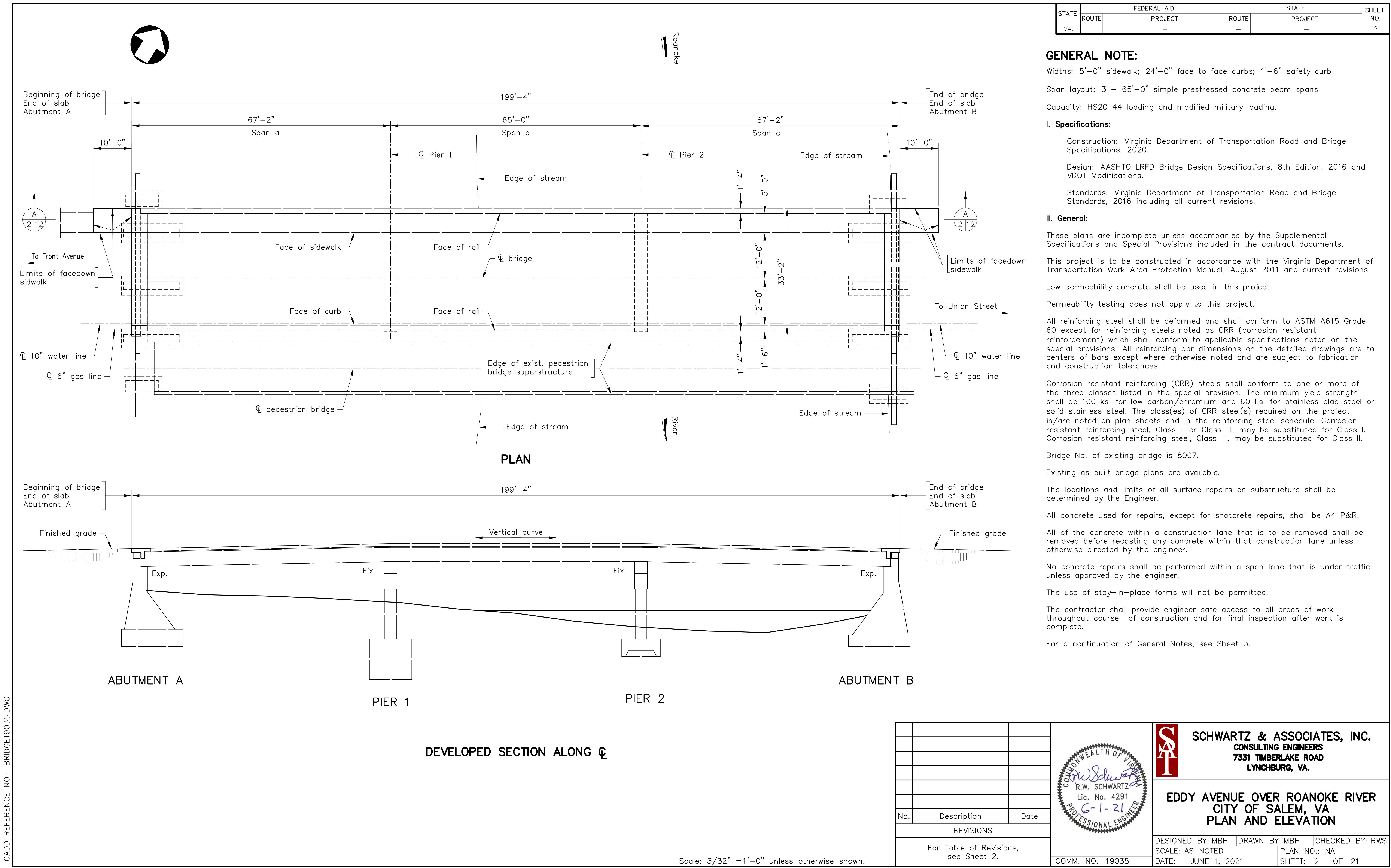


SCHWARTZ & ASSOCIATES, INC.  
CONSULTING ENGINEERS  
LYNCHBURG – ROANOKE

EDDY AVENUE OVER  
ROANOKE RIVER  
CITY OF SALEM, VA  
COVER SHEET

DESIGNED BY: MBH DRAWN BY: MBH CHECKED BY: RWS  
SCALE: NOT TO SCALE PROJECT NO.: NA  
COMM. NO. 19035 DATE: JUNE 1, 2021 SHEET: 1 OF 21

R.W. SCHWARTZ  
Lic. No. 4291  
G-1-21  
PROFESSIONAL ENGINEER



**GENERAL NOTES CONT'D.**

Before proceeding with any work within or adjacent to the existing structure, the contractor shall become familiar with existing conditions. During construction operations, it shall be the contractor's responsibility to maintain the integrity of the existing structure where the existing structure is modified to accommodate new construction, and to protect from damage those portions of the structure which are to remain.

All areas disturbed on this project, not covered by other notes, shall be restored to its original or better conditions as directed by the Engineer. All costs for this work shall be included in other items.

The Contractor shall take extreme caution in his operations so that no damage is done to utilities in vicinity of the project limits. If any utilities are damaged by the Contractor, they shall be repaired at his expense and to the satisfaction of the Engineer.

All concrete areas blasted shall be blasted to a medium finish for a time sufficient to expose sound concrete and coarse aggregate with slight reveal (maximum reveal 1/4 inch), unless otherwise noted. They shall be blasted using a VDOT approved abrasive material.

The locations of existing utilities, including underground utilities, is indicated on the drawings insofar as their existences and location were known at the time of preparation of the drawings. However, nothing in these contract documents shall be construed as a guarantee that such utilities are in the locations indicated or that they actually exist, or that other utilities are not within the area of operations. The Contractor shall pay for any damage to and for maintenance and protection of existing utilities and structures.

Contractor shall exercise extreme caution when removing existing concrete so that none of the portion of the structure or reinforcing steel to remain in place is damaged. Existing concrete shall be removed with pneumatic hammer (max. weight 35 lbs.) except use 15 lb. hammer for final trim work. Pneumatic hammers shall be worked at an angle of 45 to 60 degrees (Section 412.03 (a)).

The Contractor shall submit to the Engineer a detailed plan for containing construction related material (i.e. shot blasting media, concrete debris, uncured concrete, etc.) and preventing its entry into the Roanoke River. This work shall be included in the price bid for appropriate bid items.

The Contractor shall plan and execute the work such that no more than 10,000 square feet of land disturbance occurs at any given time.

During construction blasting, contractor shall protect adjacent traffic from blowing sand and shot. All costs shall be included in other bid items.

The contractor shall verify in field, all dimensions, skew and elevations before beginning construction.

**Concrete:**

All new concrete shall have obtained full design strength before allowing traffic on new portion of structure.

Concrete to be used for repairs in superstructure and abutment reconstruction shall be Class A4 Post and Rail, unless otherwise noted.

Concrete in approach sidewalk shall be Class A3 General.

In areas of the structure where existing concrete is to be removed and replaced by new Class A4 concrete the requirements of Section 412 of the specifications shall apply, except as amended below.

1. Whenever existing reinforcing bars are exposed, concrete shall be removed no less than 1 inch behind the bar.
2. Existing concrete shall be removed as shown on the plan details or as directed by the engineer, to horizontal and vertical planes only, and to sound concrete, taking care not to damage the existing reinforcing steel.
3. Within twenty-four hours prior to placing new concrete, exposed reinforcing steel and faces of existing concrete shall be cleaned by abrasive blast cleaning. Reinforcing steel shall be blasted until corroded steel material and foreign material are removed to clean white metal. Concrete material shall be blasted for a time sufficient to expose sound concrete and coarse aggregate.
4. Immediately prior to placing new concrete, exposed reinforcing steel and faces of existing concrete shall be cleaned of all dust and debris.
5. The perimeter of all surface repair areas shall be saw cut  $3/4" \pm$  deep in a generally rectangular pattern.
6. All existing concrete that is removed shall be removed to horizontal and vertical planes only and to sound concrete.

All repairs to deck, sidewalks, curbs, and parapets will be measured and paid for as Type B Patching.

**Blasting – General:**

All concrete areas blasted shall be blasted for a time sufficient to expose sound concrete and coarse aggregate, unless otherwise noted. They shall be blasted using an abrasive material or a mixture of water (8,000 psi min.) and abrasive.

All reinforcing steel areas blasted shall be blasted until all concrete rust, scale, corroded steel material and foreign material are removed to clean white metal.

**Blasting – For Bonding Epoxy and Epoxy Overlay:**

Blasting, prior to application of bonding epoxy and epoxy overlay, shall be to a medium finish that is one sufficient to generally expose coarse aggregate with slight reveal – maximum reveal 1/4".

**Reinforcing Steel:**

Any existing reinforcing steel that is to remain in structure and is damaged in superstructure and substructure remodeling, as determined by the engineer, shall be corrected at the contractor's expense.

All costs associated with furnishing, fabricating, and installing reinforcing steel shall be included in other appropriate bid items.

All exposed reinforcing steel in concrete remodeling areas shall be blasted and covered with bonding epoxy immediately prior to recasting concrete.

**Epoxies:**

All construction joints shall be bonded with bonding epoxy. All bonding epoxy used on structure shall be Sika Armatec 110 EpoCem. All new concrete cast against hardened concrete shall be bonded to hardened concrete with bonding epoxy after sand blasting.

All new concrete cast in structure shall be bonded to existing concrete with bonding epoxy. Bonding epoxy used on structure shall be Sika Armatec 110 (or approved equivalent) unless otherwise noted on plans.

All costs related to bonding construction joints, as shown on these contract drawings, shall be included in cost bid for other items.

**Incidentals:**

The locations of existing utilities, including underground utilities, is indicated on the drawings insofar as their existence and location were known at the time of preparation of the drawings. However, nothing in these contract documents shall be construed as a guarantee that such utilities are in the location indicated or that they actually exist, or that other utilities are not within the area of operations. The contractor shall make all necessary investigations to determine the existence and locations of such utilities. The contractor shall pay for any damage to and for maintenance and protection of existing utilities and structures.

Any damaged shrubs, flowers, etc. shall be replaced with the original size and type that was damaged, as directed by the engineer. All costs shall be paid for by the contractor.

The costs of any necessary construction surveying shall be included in unit price bid for other items in contract.

All temporary erosion & siltation control shall be in accordance with Virginia Erosion & Sediment Control Handbook & these drawings & contract documents.

All costs for erosion & siltation control items, as directed by the engineer, shall be included in other bid items.

All costs for grading, shaping, seeding, fertilizing, liming, over seeding, furnishing and placing topsoil and mulching in disturbed areas on this project shall be included in other bid items.

**Operations:**

1. Class A3 concrete:

All Class A3 Concrete cast in approach sidewalk shall be cast in no more than two continuous operations.

2. Class A4 P&R Concrete:

All Class A4 P&R Concrete cast in each repair stage shall be cast in no more than two continuous operations per stage per bridge.

3. Shotcrete:

The contractor shall prepare 50% of the shotcrete areas so that they will be ready for viewing at one time. Contractor shall then shotcrete 50% of the total areas in one continuous operation per bridge.

4. Epoxy Overlay:

a. The contractor shall schedule application of epoxy overlay in no more than two operations, so that all of each coat is applied in one continuous operation with the second coat following the first coat as soon as the first has dried sufficiently.

5. Blasting:

a. The contractor shall schedule application of epoxy overlay surface preparation in no more than two operations, so that all or each coat is applied in one continuous operation with the second coat following the first coat as soon as the first had dried sufficiently.

STATE	FEDERAL AID		STATE	
	ROUTE	PROJECT		
VA.	—	—	—	—

SHEET NO. 3

INDEX OF DRAWINGS	
SHEET NO.	DESCRIPTION
1	Cover
2	Plan and elevation
3	General notes continued and index of sheets
4	Estimated quantities
5	Construction Stages, & Sequence of Construction
6	Prestressed beam bearing details
7	Shotcrete, jacking notes, and dismantle and remove portion of existing structure
8	Abutment A backwall reconstruction details
9	Abutment B backwall reconstruction details
10	Diaphragm replacement details
11	Deck extension details
12	Reinforcing steel schedule & facedown sidewalk details
13	Toggle bolt details
14	Maintenance of traffic notes
15	Traffic management plan & road summary
16	Limits of flexible pavement planing & demolition
17	Sign layout – Stages 1 & 2
18	Sign layout – Stages 1 & 2
19	Notes for traffic control
20	Lane closure – Stage 1
21	Lane closure – Stage 2

Rev. No.	Sheets Revised		Date
TABLE OF REVISIONS			

 R.W. SCHWARTZ Lic. No. 4291 G-1-21 PROFESSIONAL ENGINEER	SCHWARTZ & ASSOCIATES, INC. CONSULTING ENGINEERS 7331 TIMBERLAKE ROAD LYNCHBURG, VA	
	EDDY AVENUE OVER ROANOKE RIVER CITY OF SALEM, VA GENERAL NOTES CONTINUED AND INDEX OF DRAWINGS	
	DESIGNED BY: MBH	DRAWN BY: MBH
REVISIONS	SCALE: AS NOTED	CHECKED BY: RWS
COMM. NO. 19035	DATE: JUNE 1, 2021	PLAN NO.: NA
		SHEET: 3 OF 21

## ESTIMATED QUANTITIES – SUBSTRUCTURE BID ITEMS

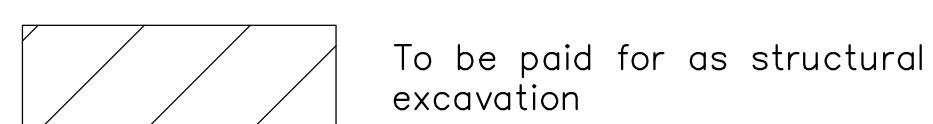
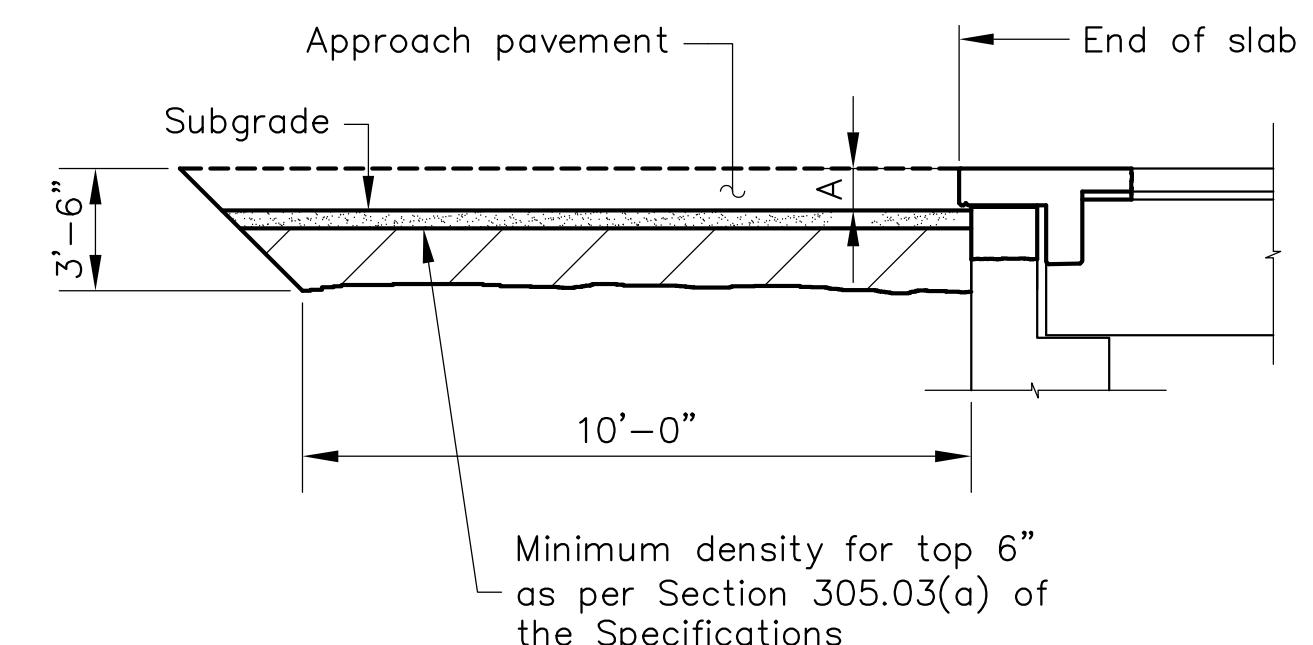
		Shotcrete Type B	Abutment Backwall Reconstruction	Embedded Galvanic Anode (Substructure)	Structure Excavation	Select Material Type-1 Min. CBR-30
		SF	LF	EA	CY $\otimes$	TONS
Abutment A	Neat	210	37	105	58	117
	Footing	—	—	—	—	—
Pier 1	Neat	—	—	—	—	—
	Footing	—	—	—	—	—
Pier 2	Neat	—	—	—	—	—
	Footing	—	—	—	—	—
Abutment B	Neat	292	37	146	58	117
	Footing	—	—	—	—	—
Totals		502	74	251	116	234

⊗ – Denotes items to be paid for on basis of plan quantities in accordance with current road and bridge specifications.

## ESTIMATED QUANTITIES – SUPERSTRUCTURE ONLY

Item	Units	Quantity
Patching Type B	SY	25
Patching Type C	SY	10
Deck Slab Extension	LF	67
Epoxy Overlay	SY	892
Bearing Pad Replacement (Abutment)	EA	8
Jacking Beams	EA	8
Replace End Diaphragms	EA	6
Embedded Galvanic Anode (Superstructure)	EACH	255
Replace Toggle Bolts TB-1	EACH	7
Replace Toggle Bolts TB-2	EACH	15

⊗ – Denotes items to be paid for on basis of plan quantities in accordance with current road and bridge specifications.



## ABUTMENT BACKFILL DETAILS

Not to scale

## ESTIMATED QUANTITIES – ROADWAY SUMMARY

Item	Units	Quantity
Ashpalt Concrete Type SM-9.5A 	TON	35
Asphalt Concrete Base Course BM-25.0A	TON	32
Aggr. Base Material Type I, Size #21-B (6% moist. correction)	TON	67
Demolition of Pavement	SY	78
Flexible Pavement Planing (0 – 2" depth)	SY	267
Facedown Sidewalk	SY	28
Type A Pavement Line Marking	LF	400
Type B, Class VI, Contrast Pavement Line Marking (4" yellow)	LF	400

▲ = Non-polishing aggregate

## ESTIMATED QUANTITY NOTES

<b>LUMP SUM BID ITEMS</b>	
Mobilization	LS
Maintenance of Traffic	LS
General Maintenance	LS
Dismantle and Remove Portion Existing Structure No. 8007	LS

## ESTIMATED QUANTITY NOTES

Areas of the structure to be removed under the bid item "Dismantle and Remove Portion Existing Structure Number 8007" shall include but are not limited to the following: portions of deck, sidewalk, safety curb, located within the limits of the deck extensions and the portion of abutment back walls located within the reconstruction limits.

Price bid "Deck Slab Extension" shall include all costs of removing and disposing of the existing expansion joints, furnishing and placing Class A4 P&R concrete, supply and place all reinforcing steel, supply and install 1/2" expanded rubber joint sealer, 1" premolded joint filler, sandblast all existing concrete surfaces and existing reinforcing steel to remain in place, bonding epoxy, all cost for cutting & removing existing face-down curb located at downstream side of Abutment A, forming and furnishing concrete to re-cast face-down curb to match existing curb, furnishing and installing pourable joint sealer between end of deck slab extension and end of face-down curb, and supplying all materials, tools, equipment, and labor necessary to complete all perform work shown on these drawings.

Price bid "Abutment Reconstruction" shall include all costs of furnishing and placing Class A4 P&R concrete, supply and place all reinforcing steel, adhesive material, adhesive anchors, 1" premolded joint filler, sandblast all existing concrete surfaces and existing reinforcing steel to remain in place, bonding epoxy, and supply all materials, tools, equipment, and labor necessary to complete all perform work shown on these drawings.

All costs for dampproofing shall be included in price bid "Abutment Reconstruction".

All costs for furnishing and placing fast-setting Portland cement water-stop in the cavity between the existing waterline and concrete, as directed by the Engineer, shall be included in price bid "Abutment Reconstruction".

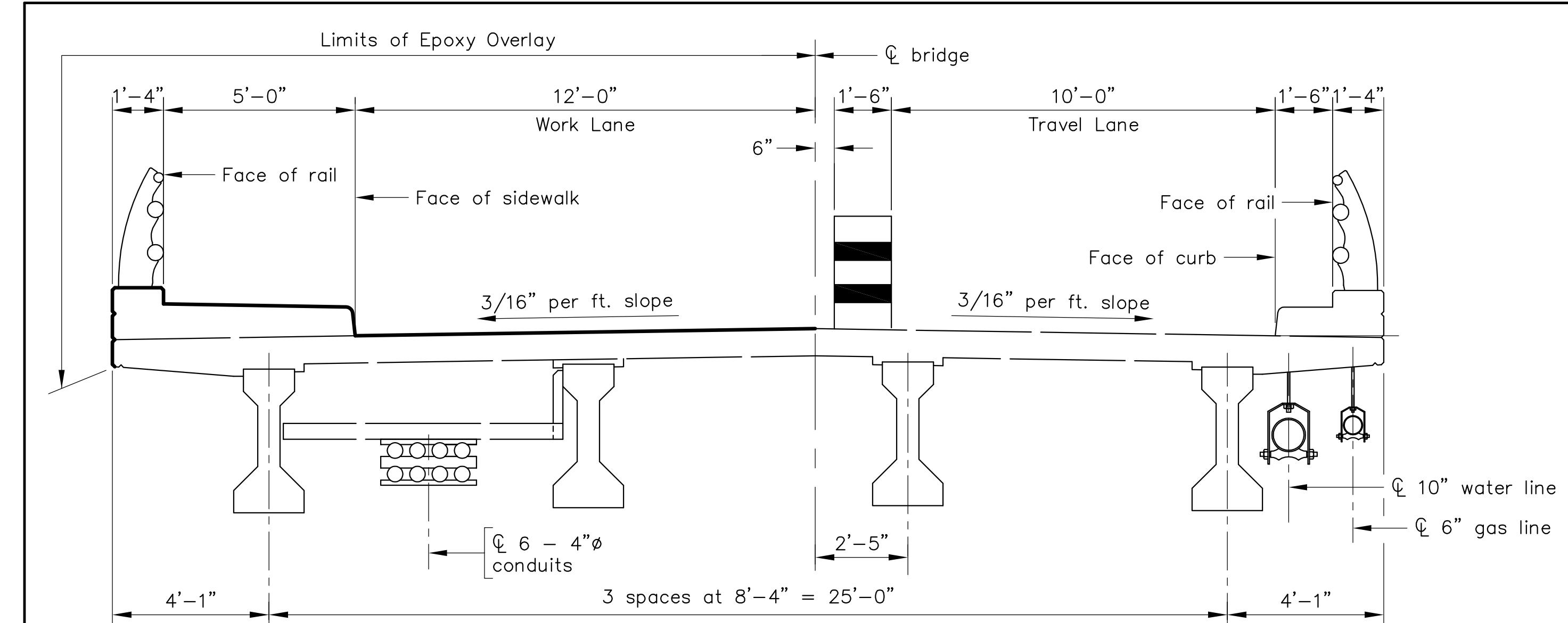
Rev. No.	Sheets Revised	Date



SCHWARTZ & ASSOCIATES, INC.  
CONSULTING ENGINEERS  
7331 TIMBERLAKE ROAD  
LYNCHBURG, VA.

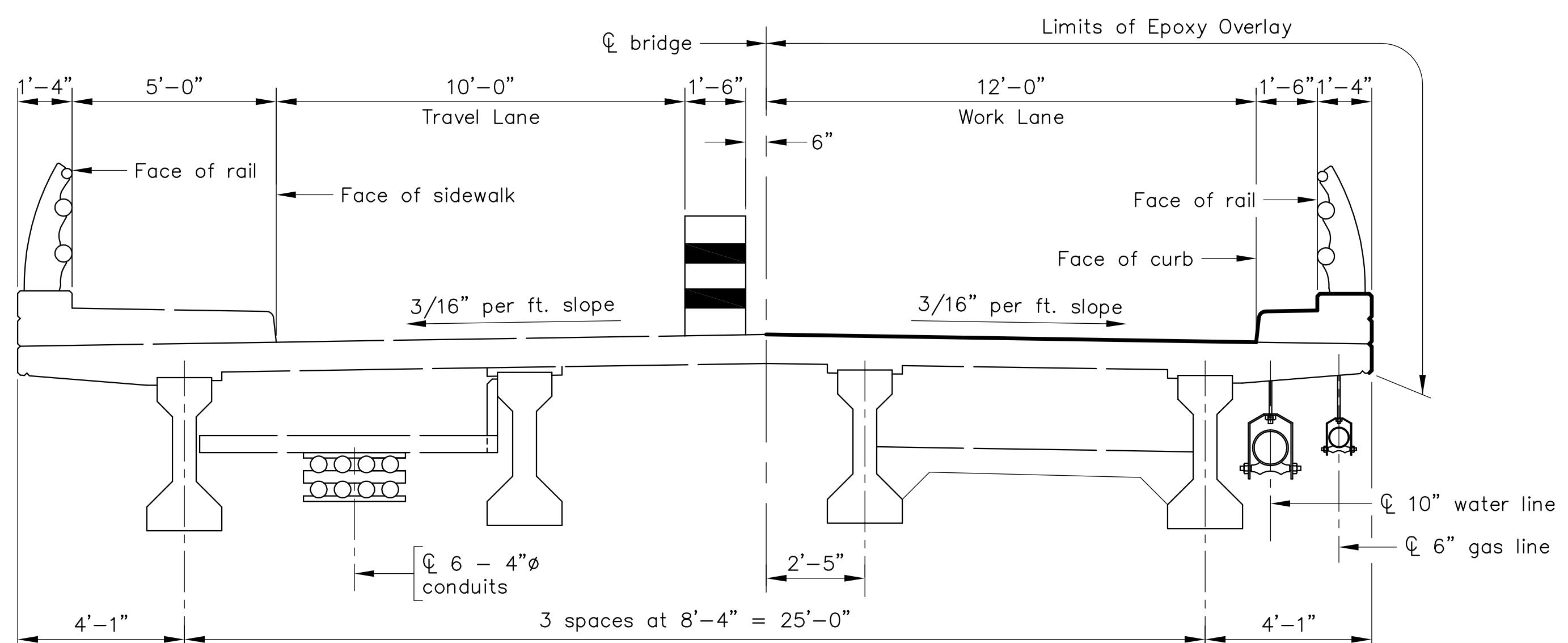
**EDDY AVENUE OVER ROANOKE RIVER  
CITY OF SALEM, VA  
ESTIMATED QUANTITIES**

SIGNED BY: MBH DRAWN BY: MBH CHECKED BY: RWS  
SHEET: NOT TO SCALE PLAN NO.: NA  
DATE: JUNE 1, 2021 SHEET: 4 OF 21



### STAGE 1 CONSTRUCTION – LOOKING TOWARDS ABUTMENT B

(Reinforcing steel not shown)



### STAGE 2 CONSTRUCTION – LOOKING TOWARDS ABUTMENT B

(Reinforcing steel not shown)

STATE VA.	FEDERAL AID		STATE PROJECT ROUTE	SHEET NO. 5
	ROUTE	PROJECT		

#### SEQUENCE OF CONSTRUCTION

1. Install Stage I traffic control.
2. Mill pavement at Abutments A & B approaches for Stage 1 and Stage 2.
3. Demo existing asphalt at Abutments A & B approaches.
4. Remove existing deck, diaphragms, sidewalk, and safety curb within the limits of the deck extension.
5. Remove the abutment back wall within the limits shown on the drawings.
6. Prepare, form, and pour diaphragms at both abutments.
7. Prepare, form, and pour back walls at both abutments.
8. Prepare, form, and pour deck extension at both abutments.
9. Repair deck as necessary with Type B and C patches.
10. Perform shotcrete repairs.
11. Place epoxy overlay on deck, deck fascia, sidewalk, safety curb, and terminal walls.
12. Prepare, form, and pour approach sidewalk at both abutments.
13. Repave approaches.
14. Remove Stage I traffic control.
15. Install Stage II traffic control.
16. Demo existing asphalt at Abutments A & B approaches.
17. Remove existing deck, diaphragms, sidewalk, and safety curb within the limits of the deck extension.
18. Remove the abutment back wall within the limits shown on the drawings.
19. Prepare, form, and pour diaphragms at both abutments.
20. Prepare, form, and pour back walls at both abutments.
21. Prepare, form, and pour deck extension at both abutments.
22. Repair deck as necessary with Type B and C patches.
23. Jack beams and replace bearings at both abutments.
24. Place epoxy overlay on deck, deck fascia, sidewalk, safety curb, and terminal walls.
25. Complete all general maintenance items.
26. Repave approaches.
27. Remove Stage II traffic control.
28. Perform general clean up.

Unless otherwise approved or directed by the Engineer, the Contractor shall plan and prosecute work in accordance with the above noted construction sequence.

Notes:

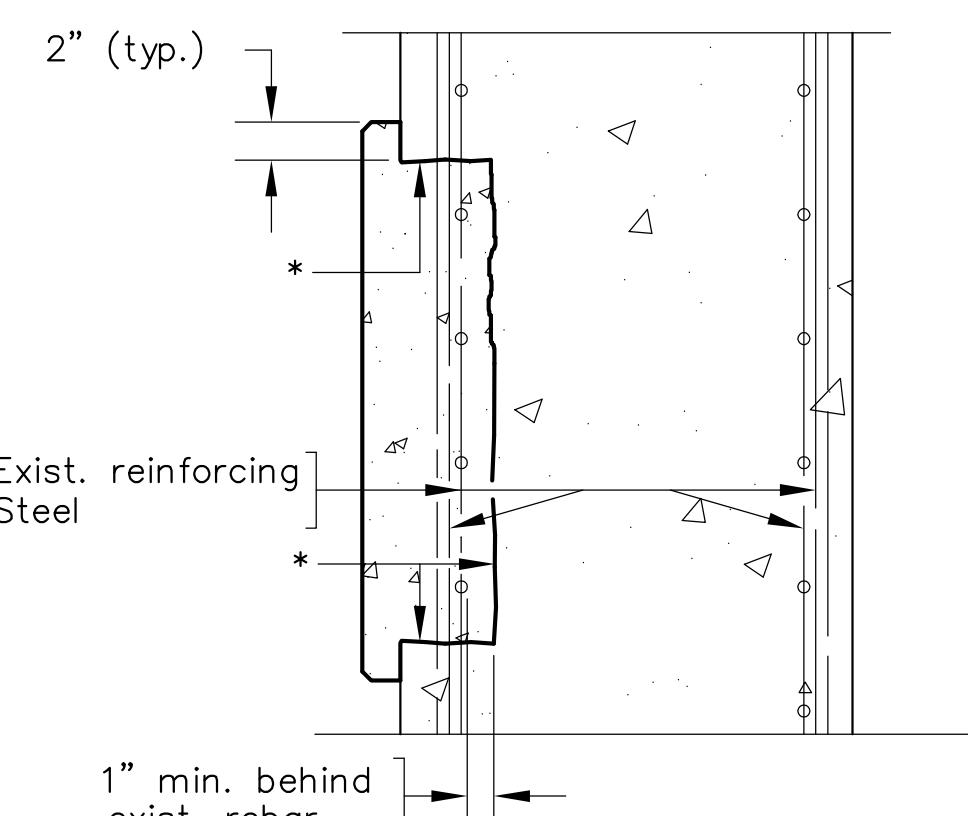
Epoxy overlay shall be applied to the following areas: top of deck, face of curbs, face of sidewalk, top of safety curb, top of sidewalk, faces of parapet, all surface areas of terminal walls, and exterior fascia for full length of bridge.

				<b>Schwartz &amp; Associates, Inc.</b> CONSULTING ENGINEERS 7331 TIMBERLAKE ROAD LYNCHBURG, VA.
DESIGNED BY: MBH	DRAWN BY: MBH	CHECKED BY: RWS		
SCALE: AS NOTED	PLAN NO.: NA			
REVISIONS				
COMM. NO. 19035	DATE: JUNE 1, 2021	SHEET: 5 OF 21		



FEDERAL AID		STATE	
STATE	ROUTE	PROJECT	ROUTE
VA.	—	—	—

7



\* - Remove existing concrete to this line.

#### TYPICAL SECTION

Not to scale

#### NOTES ON SHOTCRETE- TYPE B

Shotcrete shall be used to cover exposed reinforcing steel, areas where reinforcing steel is corroded, and other areas of concrete deterioration, as directed by the engineer.

All patching shall be done with shotcrete.

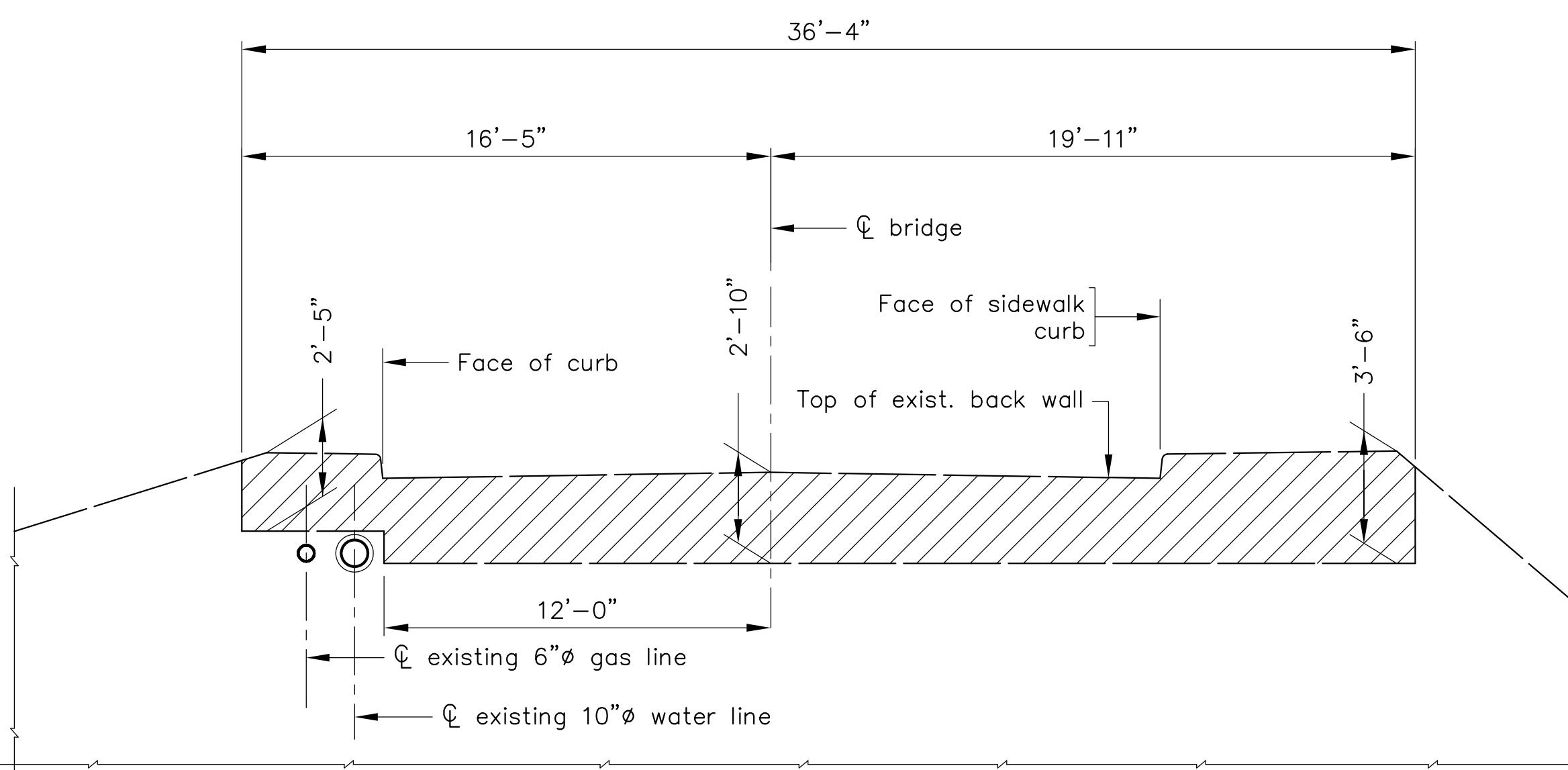
Remove existing concrete to sound concrete and in areas of Corroded reinforcing, as directed by the engineer, taking Care not to damage any existing reinforcing steel. Sandblast exposed reinforcing and faces of existing concrete that will contact the shotcrete.

There shall be a minimum cover of 2 3/4" on all exposed reinforcing steel (including shotcrete containing silica fume).

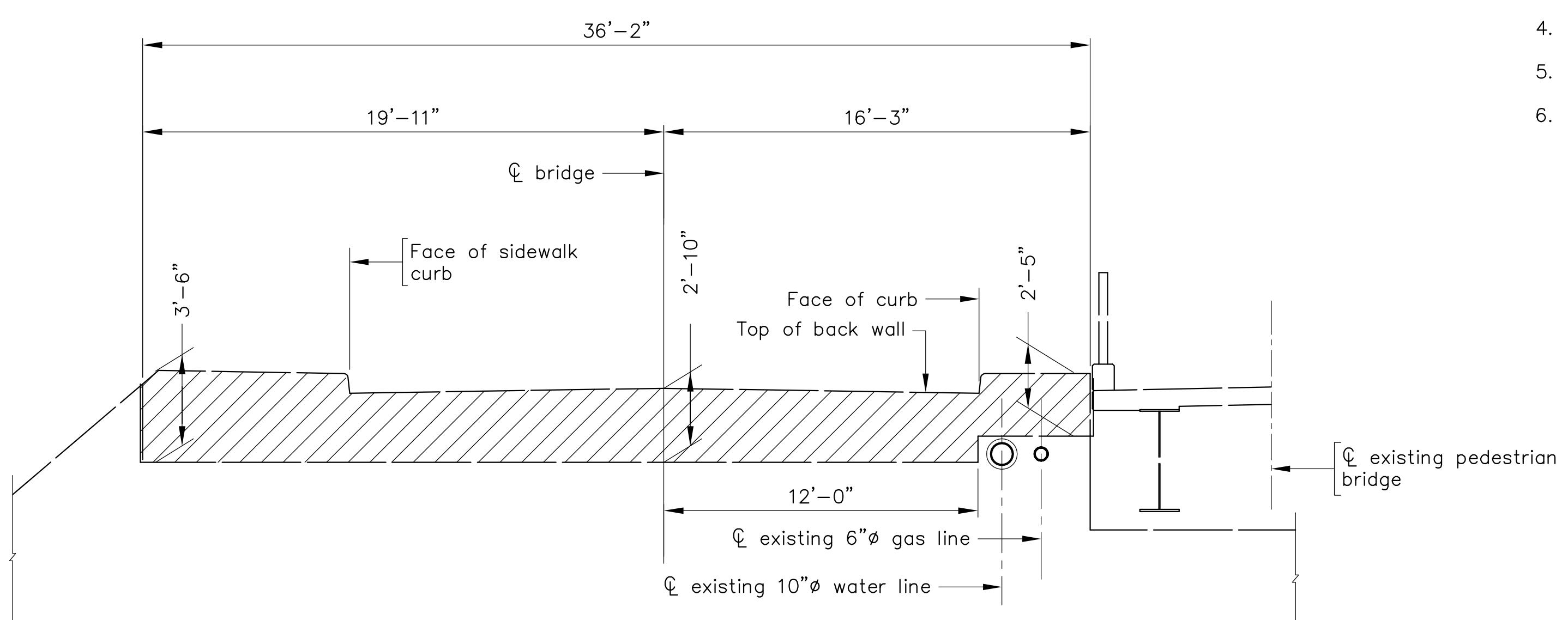
Locations of shotcrete will be determined in field by the engineer.

The Contractor shall contain all shotcrete overspray to prevent its entry into the Roanoke River, as directed by the Engineer.

#### TYPICAL DETAIL OF SHOTCRETE - TYPE B



ABUTMENT A



ABUTMENT B

— Denotes limits of dismantle and remove portion of existing structure.

#### LIMITS OF DISMANTLE AND REMOVE PORTION EXISTING STRUCTURE

Not to scale

All materials and workmanship shall be in accordance with Section 412 of the Virginia Department of Transportation Road and Bridge Specifications, 2020 and all applicable special provisions and these contract drawings.

The contractor shall submit a jacking and blocking plan in accordance with Section 412 of the Virginia Department of Transportation Road and Bridge Specifications, 2020 and all applicable special provisions.

Jacks shall be operated in accordance with manufacturers requirements. Jacks shall be maintained in a plumb position and beams shall be jacked vertically. Jacks shall be positioned such that they are centered directly under the existing diaphragm.

Prior to jacking the Contractor shall ensure there are no obstacles preventing the span from being lifted.

All jacks shall be self locking.

Contractor shall use seasoned oak blocks, they shall be shimmed level as required.

Contractor shall only jack beams  $\frac{1}{4}$ " maximum.

Structural steel shall be ASTM A709 Grade 36.

No jacking shall take place under live load.

Contractor must use a 8" x 8" x 2" steel plate between the jack and wood block.

All horizontal distances shown in elevation views are measured along the  $\frac{1}{4}$  of existing diaphragm.

Jacking Sequence:

1. Remove existing anchor bolt nuts and washers from beams to be jacked.
2. Position jacks, seasoned oak blocks, and 8"x8"x2" steel plate.
3. Jack beams.
4. Replace bearings under beams to be jacked.
5. Let jacks down, remove jacks and blocks.
6. Reinstall anchor bolt nuts and washers. Do not overtighten anchor bolt nuts.

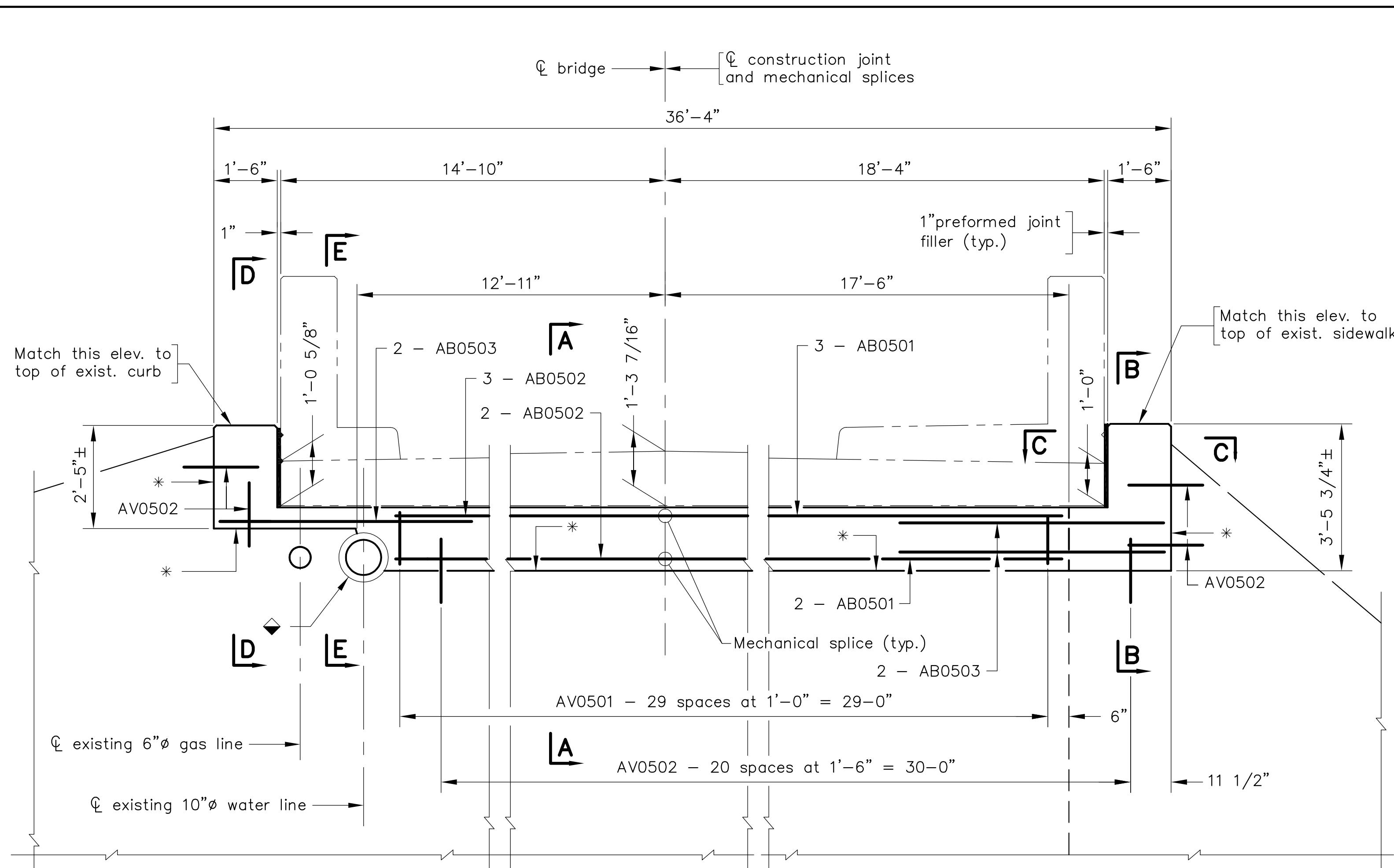
#### JACKING AND BLOCKING NOTES

No.	Description	Date	
REVISIONS			COMM. NO. 19035
			DATE: JUNE 1, 2021
			PLAN NO.: NA

SCHWARTZ & ASSOCIATES, INC.  
CONSULTING ENGINEERS  
7331 TIMBERLAKE ROAD  
LYNCHBURG, VA.

EDDY AVENUE OVER ROANOKE RIVER  
CITY OF SALEM, VA  
SHOTCRETE, JACKING NOTES, AND  
DISMANTLE AND REMOVE STRUCTURE

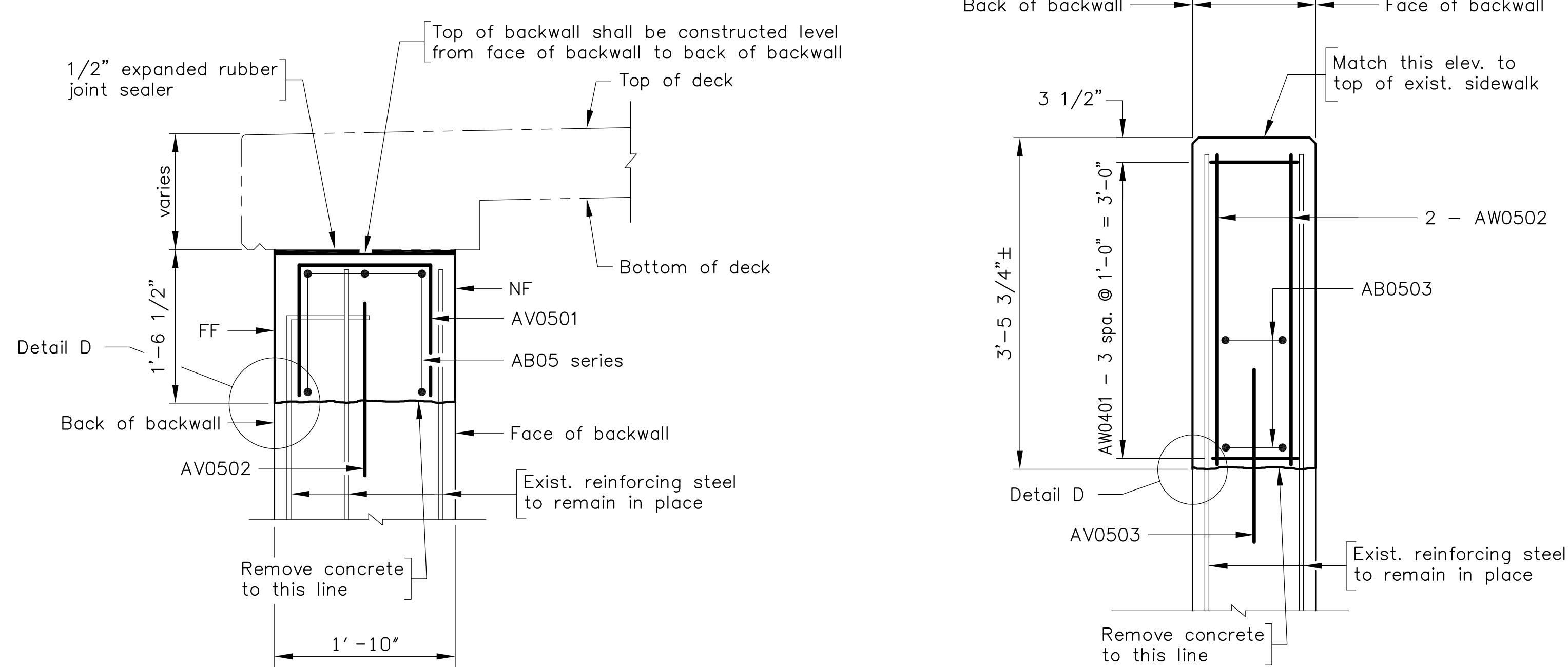
DESIGNED BY: MBH DRAWN BY: MBH CHECKED BY: RWS  
SCALE: AS NOTED PLAN NO.: NA  
DATE: JUNE 1, 2021 SHEET: 7 OF 21



\* = Remove existing concrete to this line

- ◆ – Cavity between outer surface of waterline and concrete shall be filled with a fast-setting, Portland cement water-stop.

## PART ELEVATION



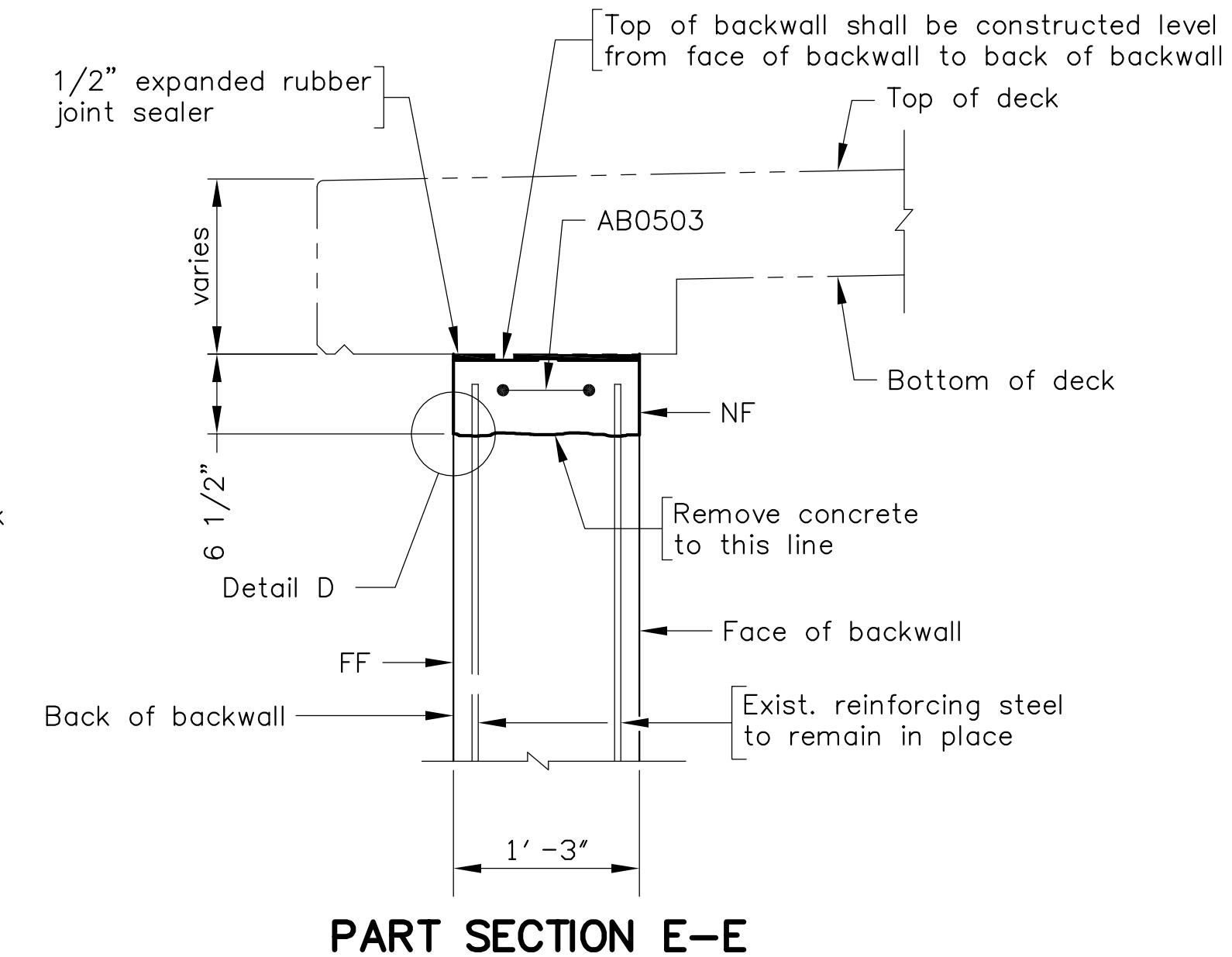
## PART SECTION A-A

Scale: 1" = 1'-0"

## PART SECTION B-B

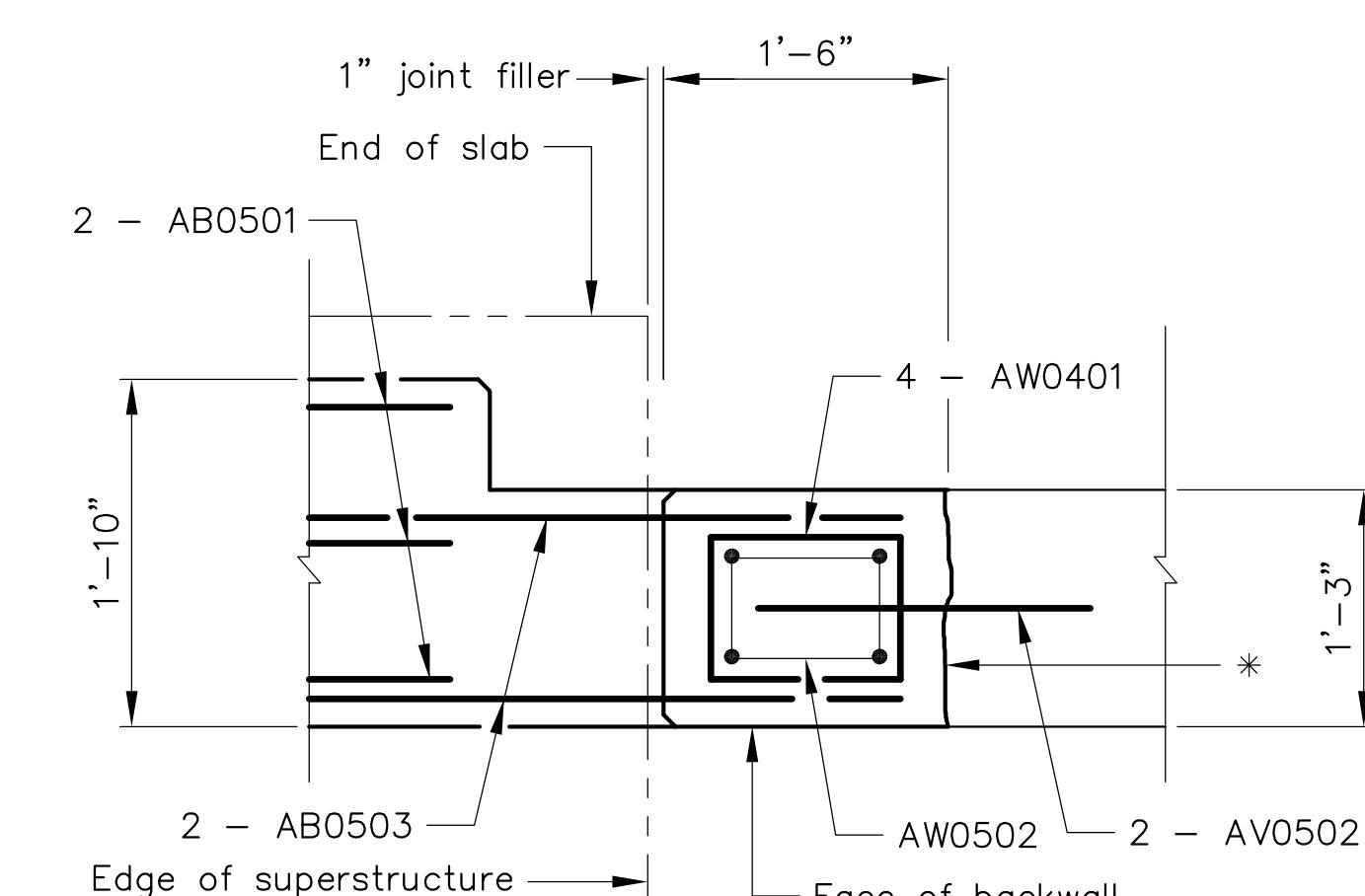
Scale: 1" = 1' 0"

Scale:  $1/2"$  =  $1'-0"$  unless otherwise shown.



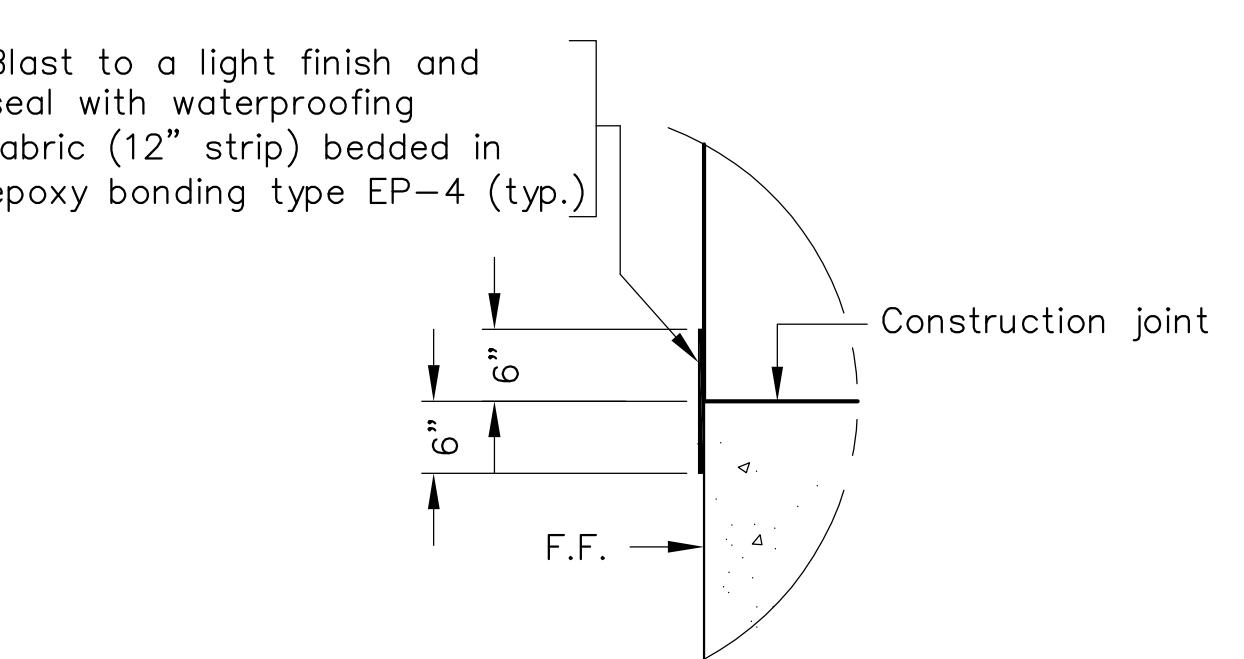
## PART SECTION E-E

Scale: 1" = 1'-0"



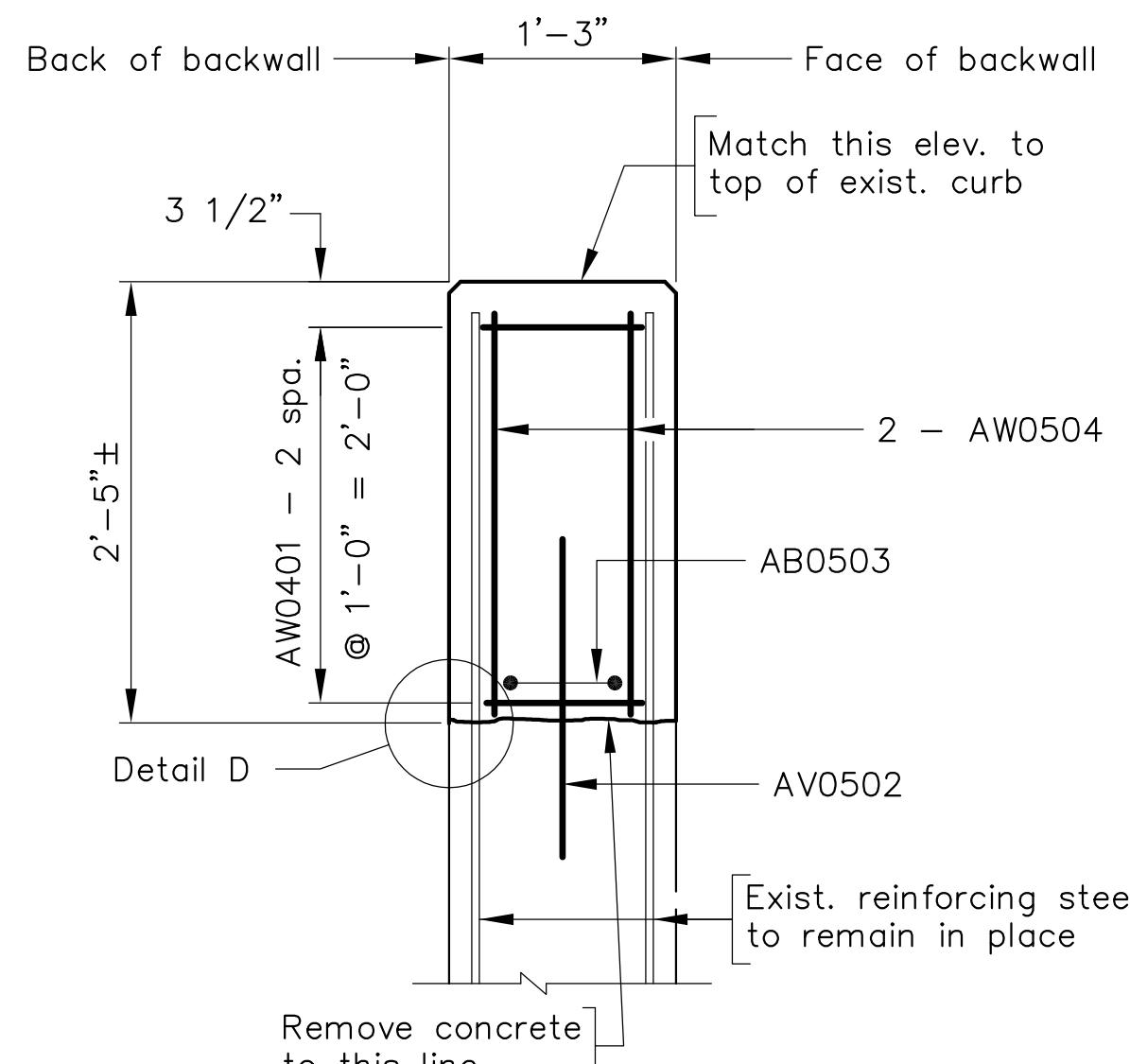
## PART SECTION C-C

Scale: 1" = 1'



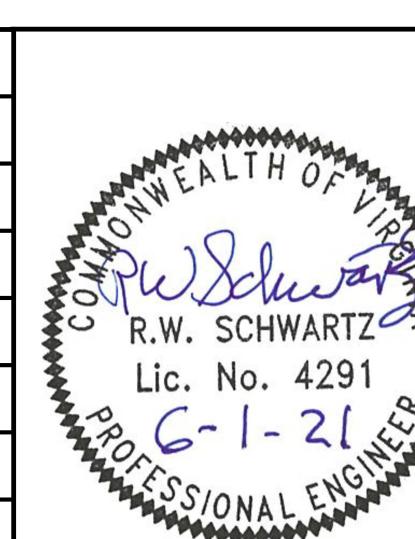
## DETAIL D

angle:  $3/4'' = 1' - 0''$



## PART SECTION D-D

Scale: 1" = 1'-0"

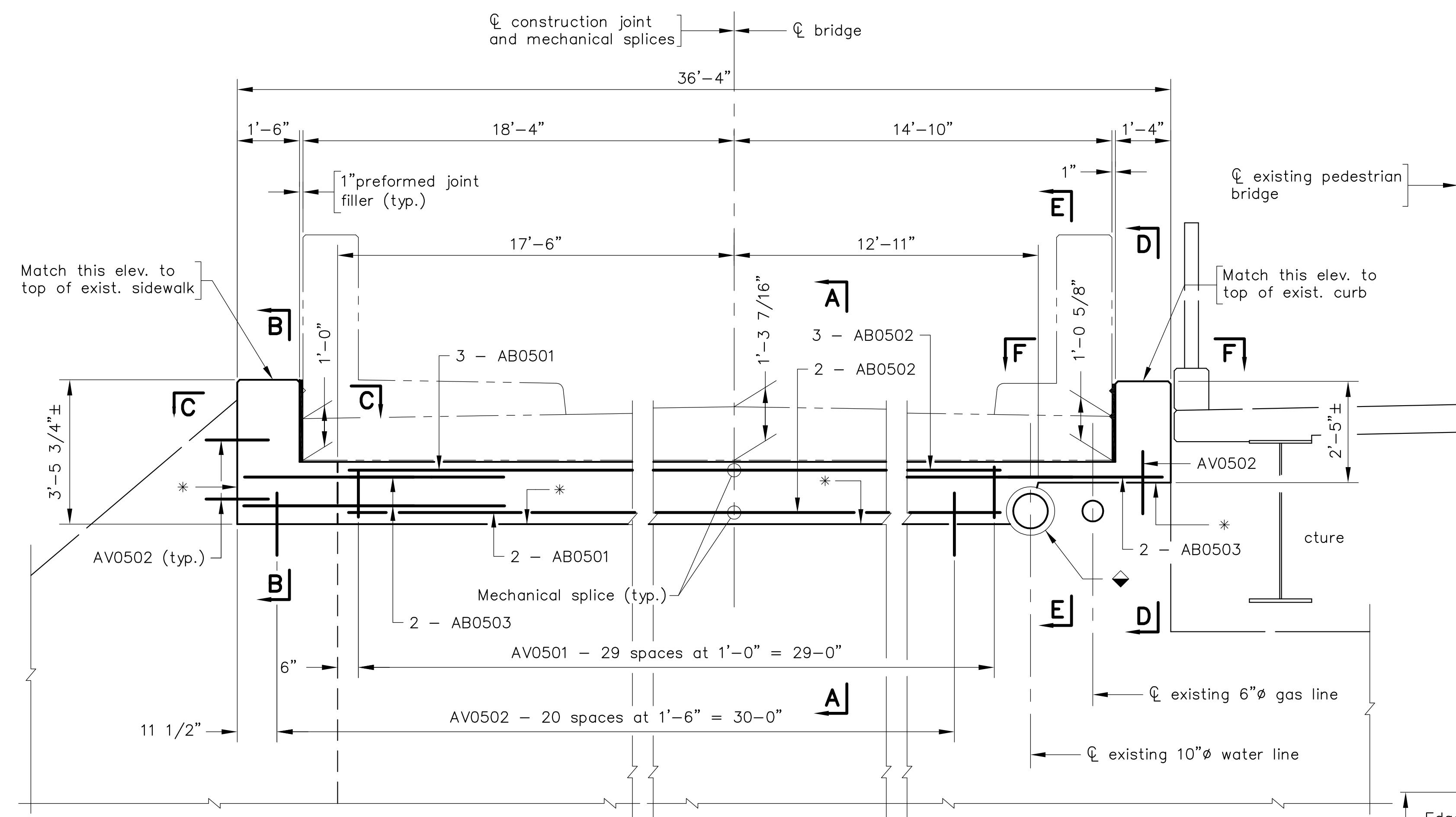


**SCHWARTZ & ASSOCIATES, INC.  
CONSULTING ENGINEERS  
7331 TIMBERLAKE ROAD  
LYNCHBURG, VA**

# EDDY AVENUE OVER ROANOKE RIVER CITY OF SALEM, VA ABUTMENT A BACKWALL RECONSTRUCTION DETAILS

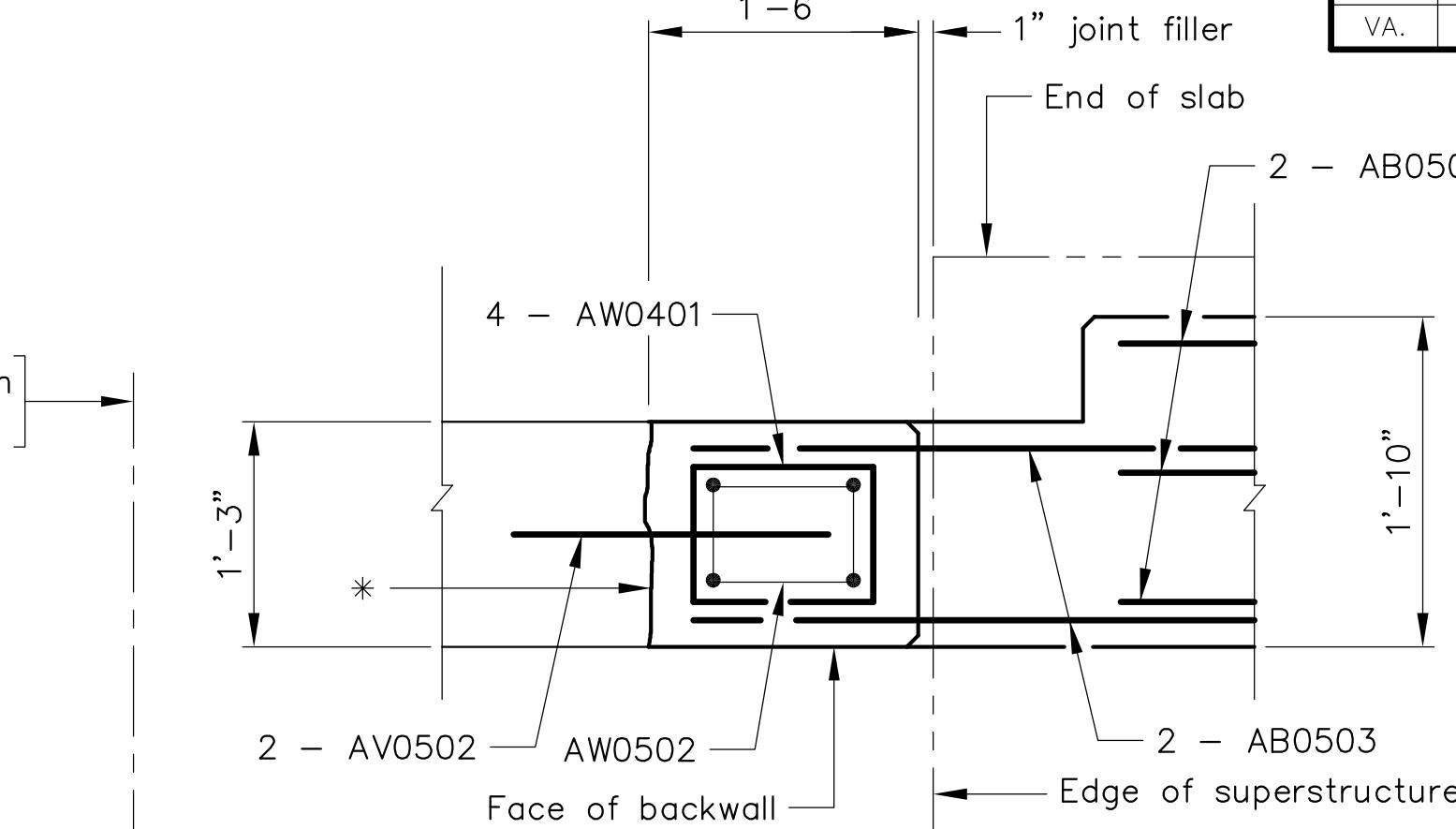
ED BY: MBH	DRAWN BY: MBH	CHECKED BY: RWS
AS NOTED		PLAN NO.: NA
JUNE 1, 2021		SHEET: 8 OF 21

STATE	FEDERAL AID		STATE		SHEET NO.
	ROUTE	PROJECT	ROUTE	PROJECT	
VA.	—	—	—	—	9



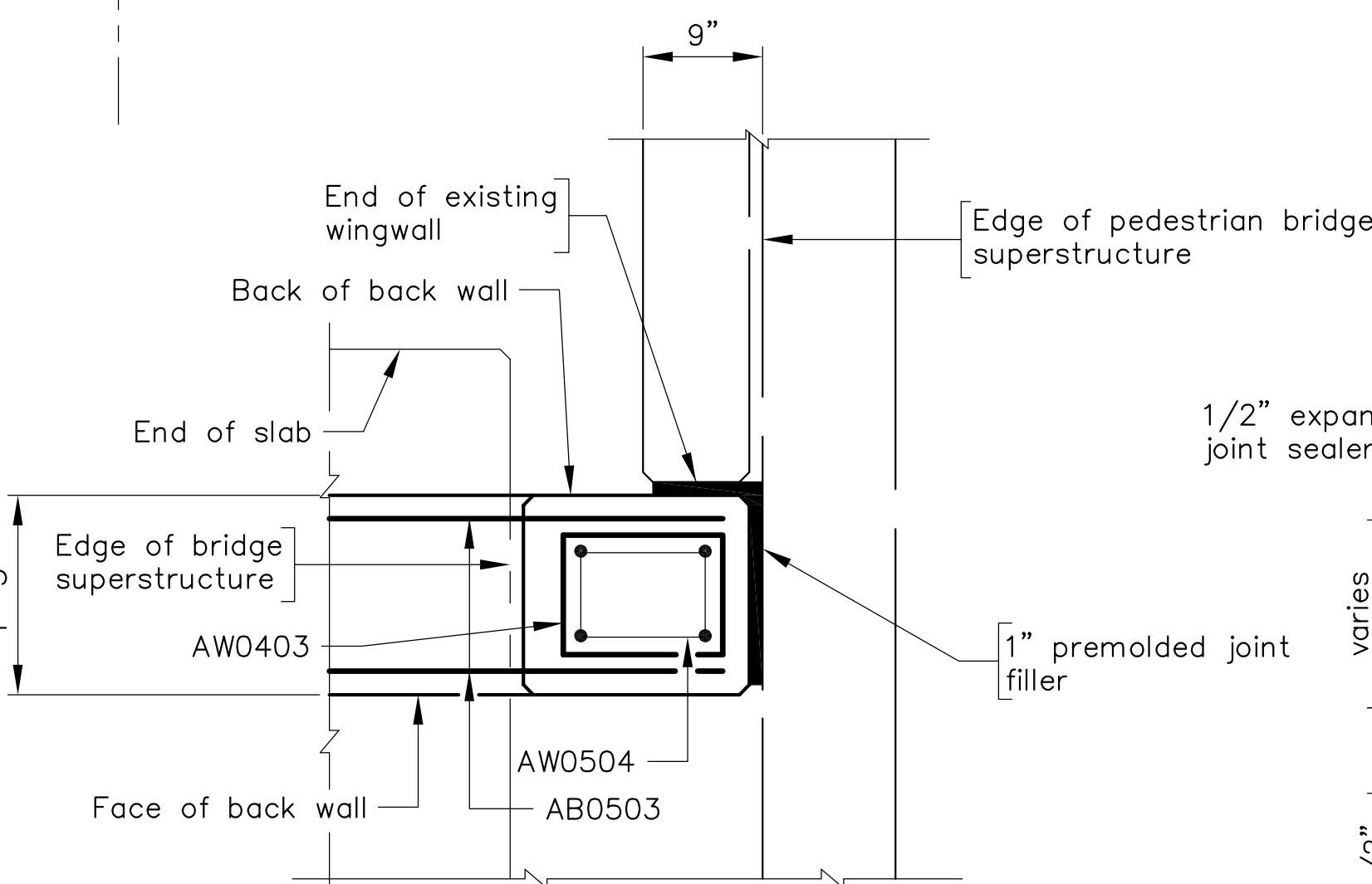
## PART ELEVATION

- \* – Remove existing concrete to this line.
- ◆ – Cavity between outer surface of waterline and concrete shall be filled with a fast-setting, Portland cement water-stop.



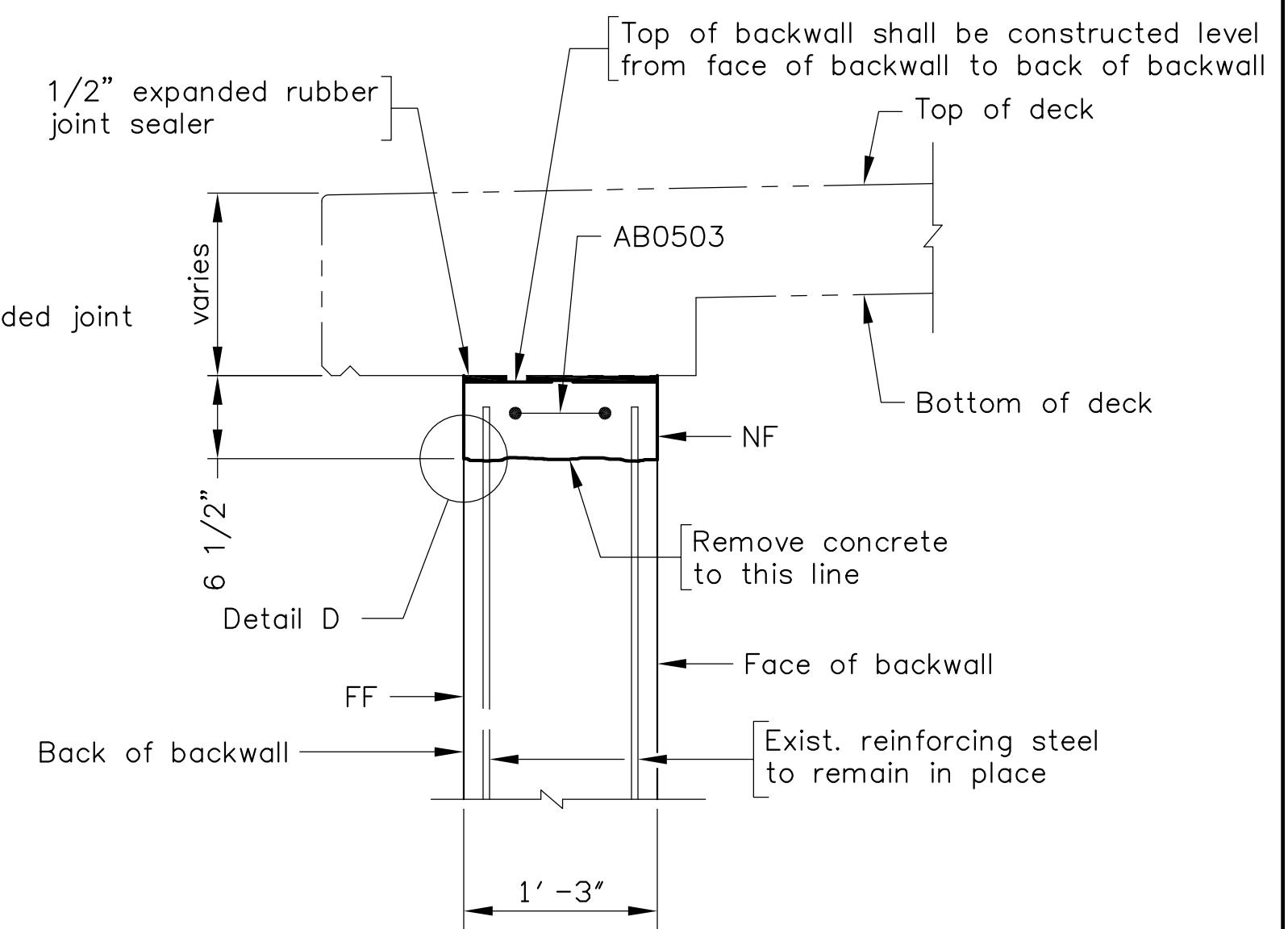
## PART SECTION C-C

Scale: 1" = 1'-0"



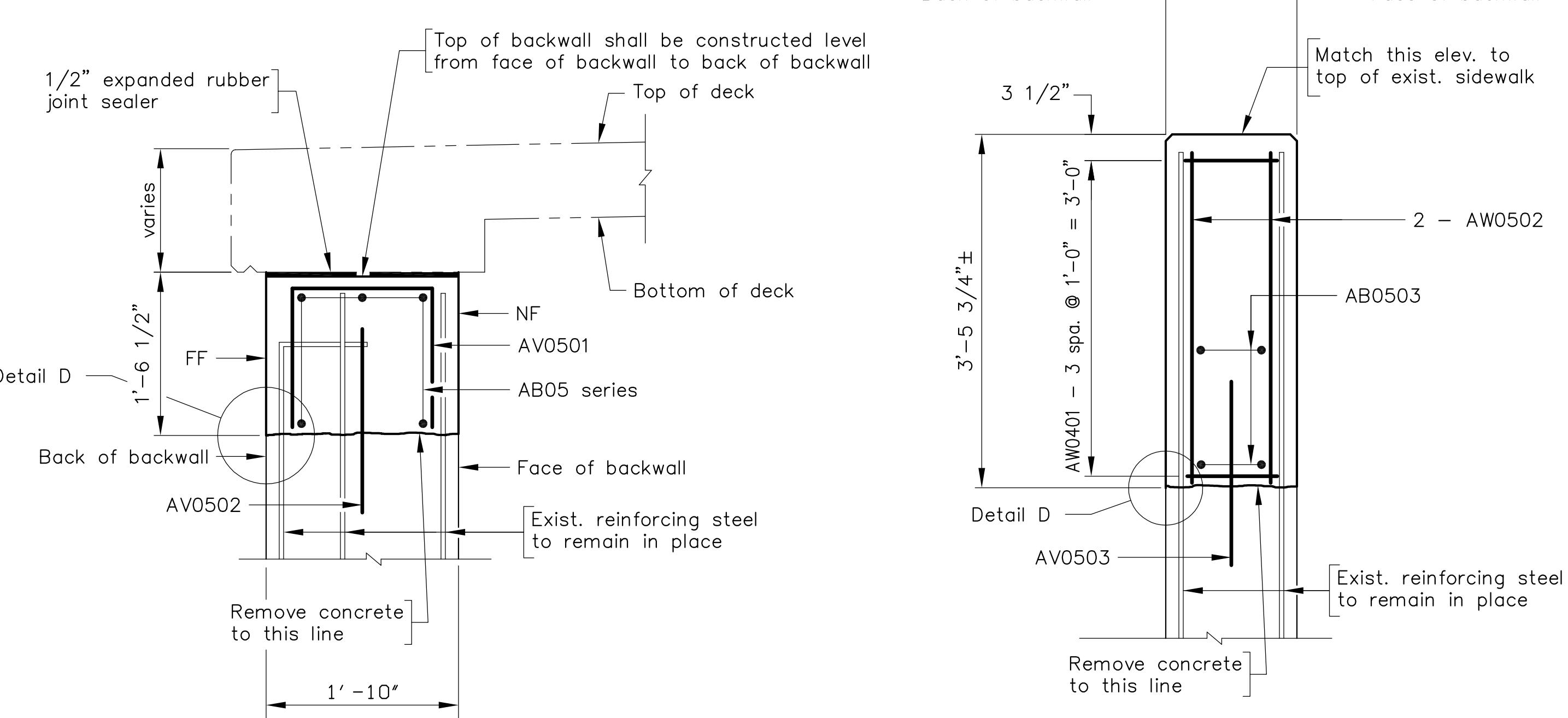
## PART SECTION D-D

Scale: 1" = 1'-0"



## PART SECTION E-E

See sheet 8 for abutment notes

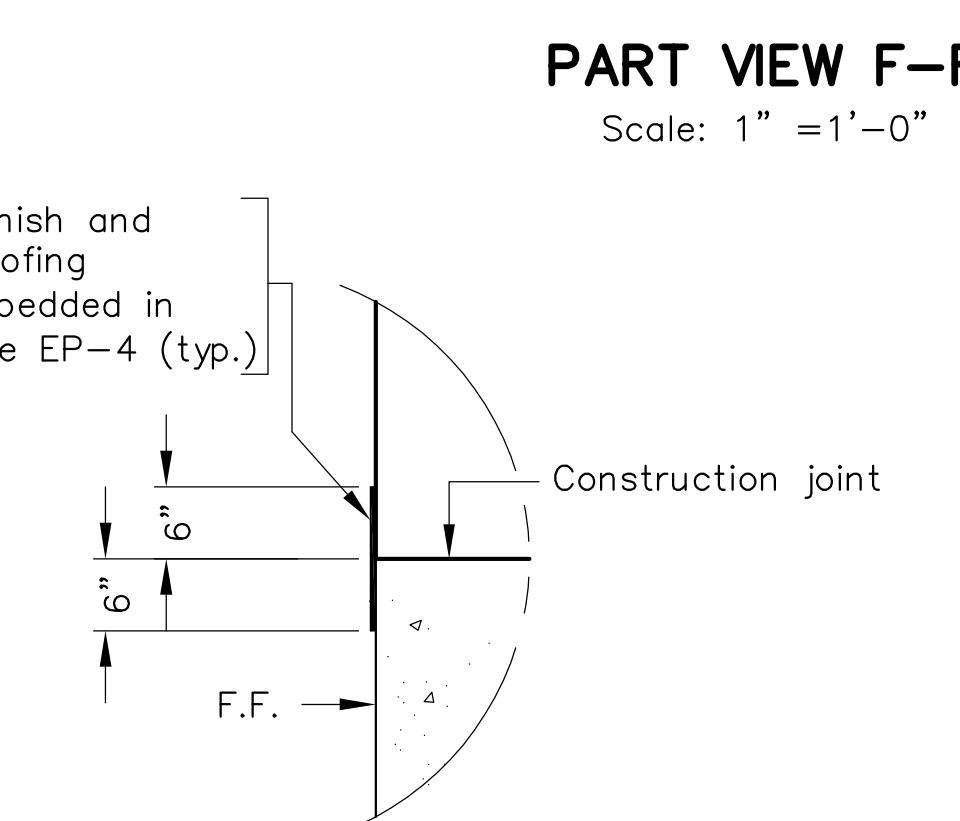


## PART SECTION A-A

Scale: 1" = 1'-0"

## PART SECTION B-B

Scale: 1" = 1'-0"



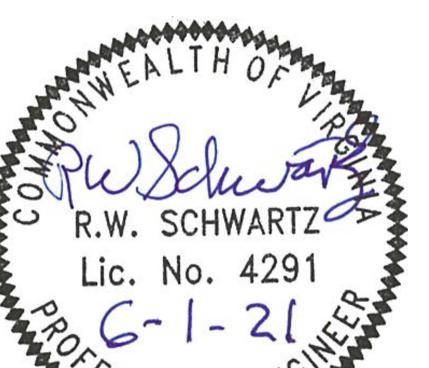
## DETAIL D

Scale:  $3/4'' = 1'-0''$

No.	Description	Date
	REVISIONS	
		COMM. NO. 19035
		DATE: JUNE 1, 2021
		SHEET: 9 OF 21

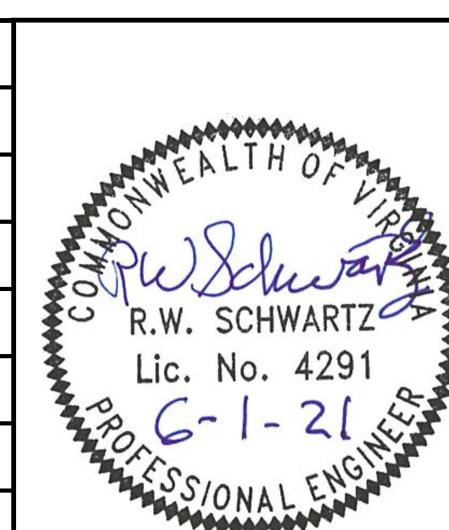


**SCHWARTZ & ASSOCIATES, INC.**  
**CONSULTING ENGINEERS**  
**7331 TIMBERLAKE ROAD**  
**LYNCHBURG, VA.**



**EDDY AVENUE OVER ROANOKE RIVER**  
**CITY OF SALEM, VA**  
**ABUTMENT B BACKWALL**  
**RECONSTRUCTION DETAILS**

DESIGNED BY: MBH	DRAWN BY: MBH	CHECKED BY: RWS
SCALE: AS NOTED	PLAN NO.: NA	

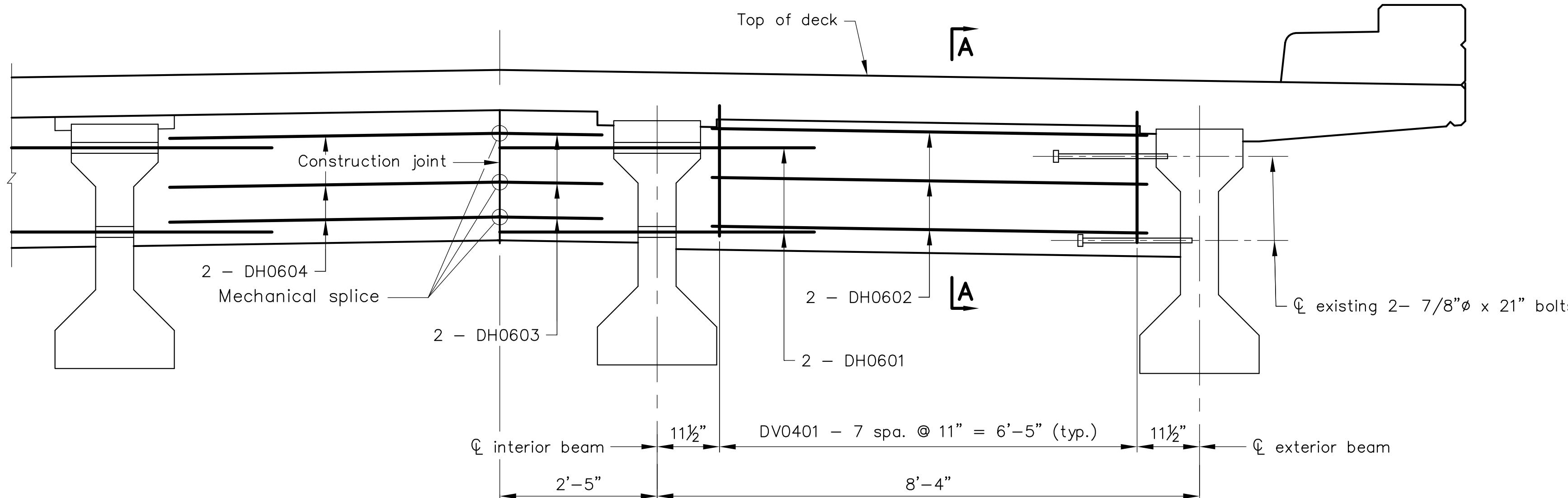


**SCHWARTZ & ASSOCIATES, INC.  
CONSULTING ENGINEERS  
7331 TIMBERLAKE ROAD  
LYNCHBURG, VA**

# **DY AVENUE OVER ROANOKE RIVER CITY OF SALEM, VA ABUTMENT B BACKWALL RECONSTRUCTION DETAILS**

FILED BY: MBH	DRAWN BY: MBH	CHECKED BY: RWS
AS NOTED		PLAN NO.: NA
JUNE 1, 2021		SHEET: 9 OF 21

STATE	FEDERAL AID		STATE		SHEET NO.
	ROUTE	PROJECT	ROUTE	PROJECT	
VA.	—	—	—	—	10



# PART TRANSVERSE SECTION – AT ABUTMENT

(Abutment B shown, Abutment A similar except opposite hand)

### Notes:

See Sheet 11 for deck extension details and reinforcement.

See Sheets 8 & 9 for abutment backwall reconstruction details and reinforcement.

The Contractor shall take care not to damage existing precast pre-stressed bulb-tee beams during removal of existing diaphragms.

The Contractor shall take care not to damage existing 7/8"Ø x 21" long bolts located on exterior beams.

All reinforcing steel shall be Class I corrosion resistant.

All concrete for diaphragms shall be A4 P&R.

All chamfers shall be  $3/4"$ .

Concrete shall provide 3" clear concrete cover.

All existing concrete removed shall be removed to horizontal and vertical planes and to sound concrete.

All concrete areas blasted shall be blasted to a medium finish for a time sufficient to expose sound concrete and coarse aggregate with slight reveal (maximum reveal 1/4 inch), unless otherwise noted. They shall be blasted using a VDOT approved abrasive material.

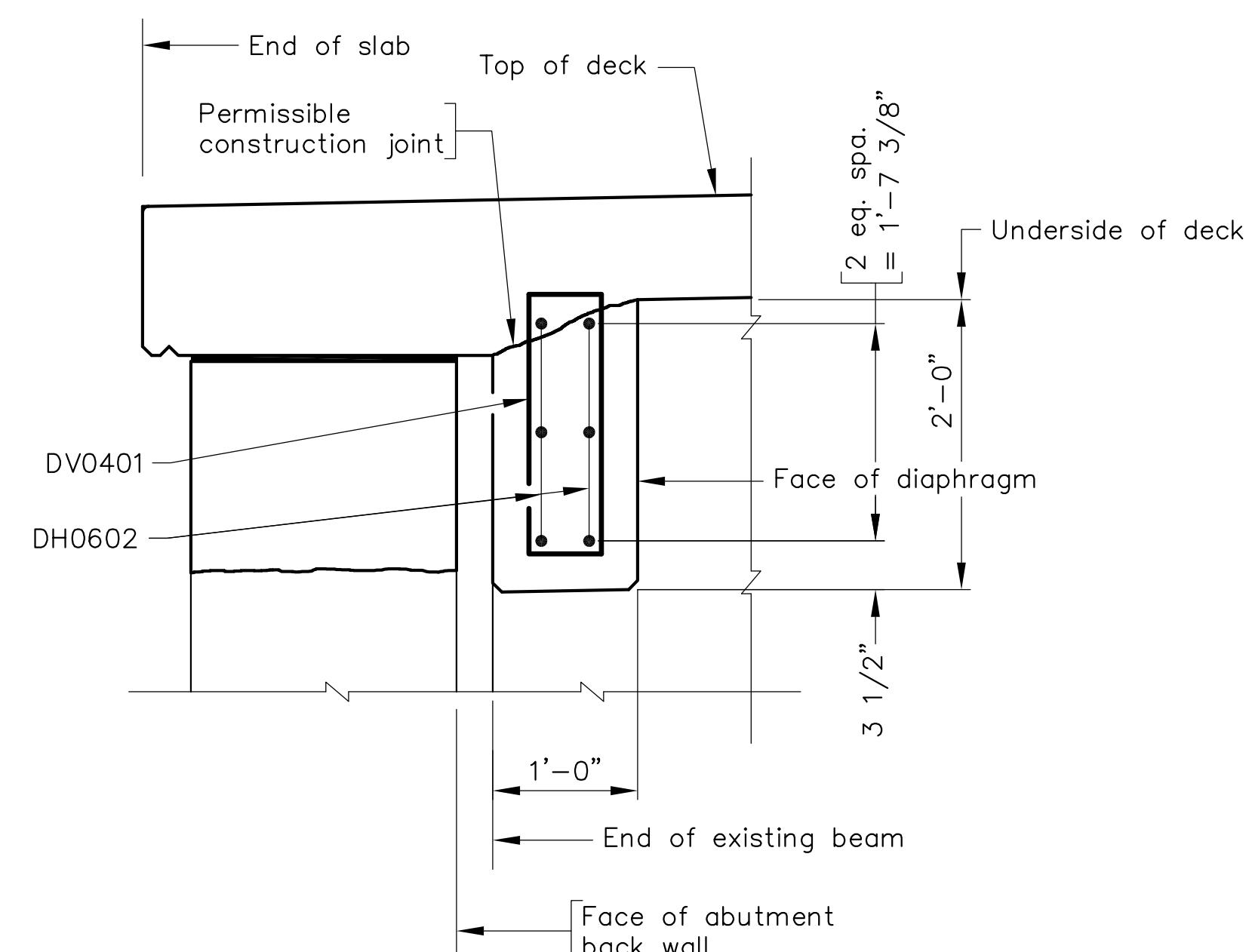
All construction joints shall be bonded with bonding epoxy. All bonding epoxy used on structure shall be Siki Aramatec 110 EpoCem. All new concrete cast against hardened concrete shall be bonded to hardened concrete with bonding epoxy after sand blasting.

All costs related to bonding construction joints, as shown on these contract drawings, shall be included in price bid "Replace End Diaphragms".

Contractor shall exercise extreme caution when removing existing concrete so that none of the portion of the existing structure or reinforcing steel to remain in place is damaged. Existing concrete shall be removed with pneumatic hammer (max. weight 35 lbs.) except use 15 lb. hammer for final trim work. Any damage to the existing structure or reinforcing steel shall be repaired at no cost to the City of Salem.

See sheet 12 for reinforcing steel diagram.

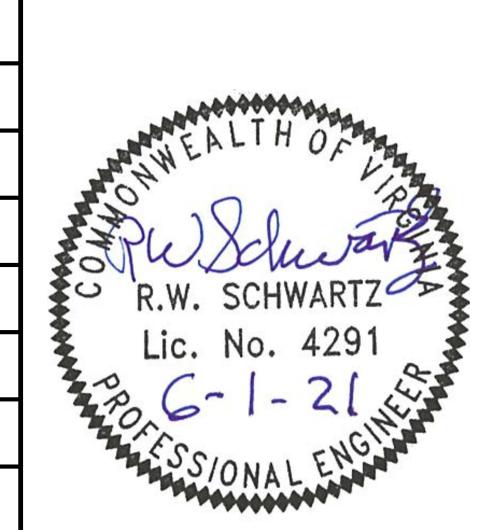
All cost for furnishing, fabricating, and installing reinforcing steel shall be included in price bid for "Replace End Diaphragms".



## SECTION A-A

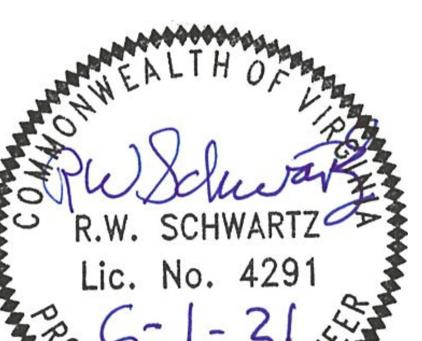
SECTION A-A

Scale:  $3/4"$  =  $1'-0"$  unless otherwise shown

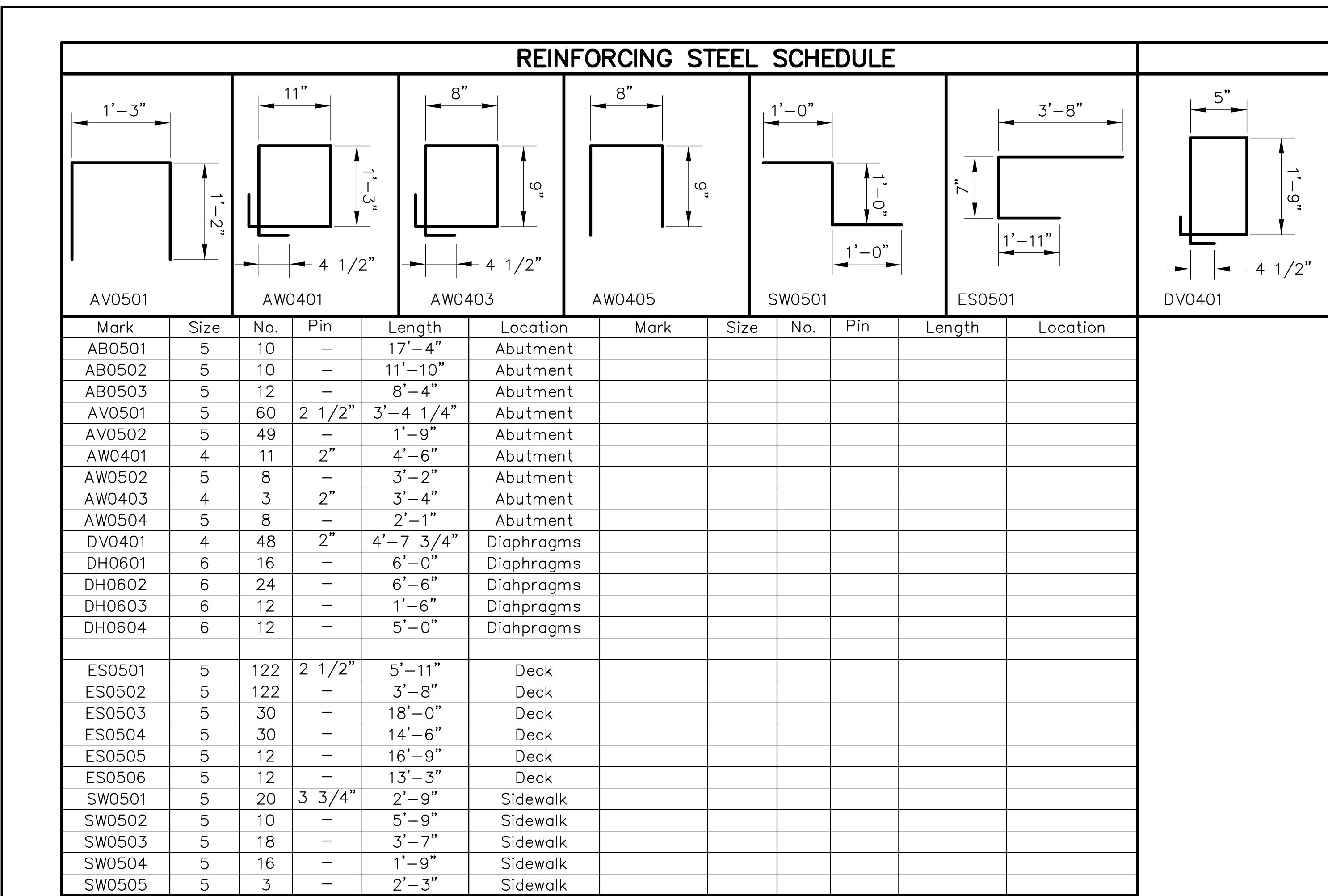


SCHWARTZ & ASSOCIATES, INC.  
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7331 TIMBERLAKE ROAD  
LYNCHBURG, VA.

EDDY AVENUE OVER ROANOKE RIVER  
CITY OF SALEM, VA  
DIAPHRAGM REPAIR ALIGNMENT DETAILS

No.	Description	Date	
REVISIONS			
		COMM. NO. 19035	
		 <b>SCHWARTZ &amp; ASSOCIATES, INC.</b> CONSULTING ENGINEERS 7331 TIMBERLAKE ROAD LYNCHBURG, VA.	
<b>EDDY AVENUE OVER ROANOKE RIVER</b> <b>CITY OF SALEM, VA</b> <b>DIAPHRAGM REPLACEMENT DETAILS</b>			
DESIGNED BY: MBH		DRAWN BY: MBH	CHECKED BY: RWS
SCALE: AS NOTED		PLAN NO.: NA	
DATE: JUNE 1, 2021		SHEET: 10 OF 21	



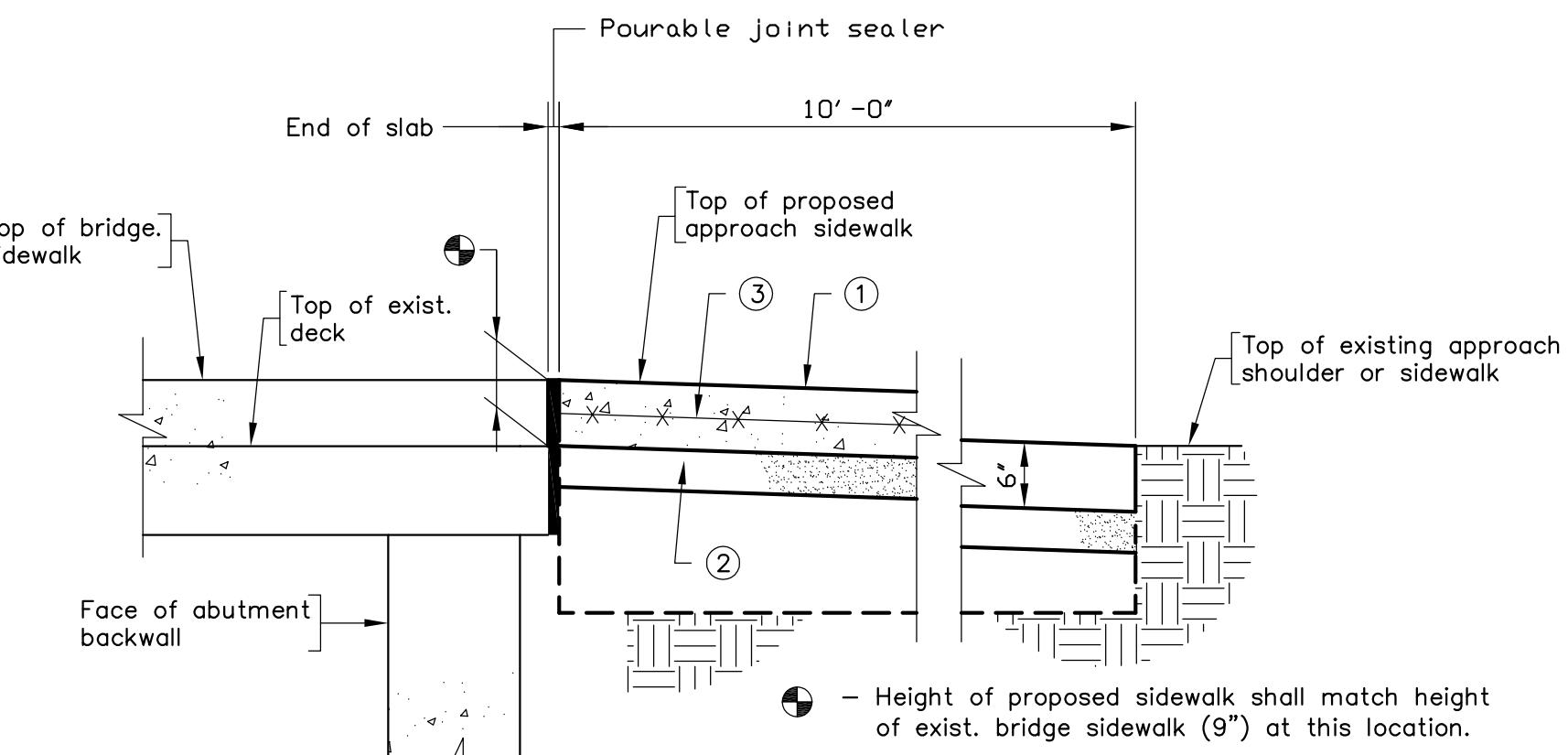


Dimensions in Bending Diagram are out-to-out of bars.

Reinforcing steel shall be corrosion resistant Class I.

\* — Contractor shall saw cut exist. asphalt along face of curb and remove existing asphalt sidewalk within the limits.

\*\* — Cast this section unformed



① Concrete, Class A3  
 ② Compacted aggregate base material, Type I, size no. 21-A (4" depth)  
 ③ 6"x6" W2.9 X W2.9 welded wire fabric

## SECTION A-A

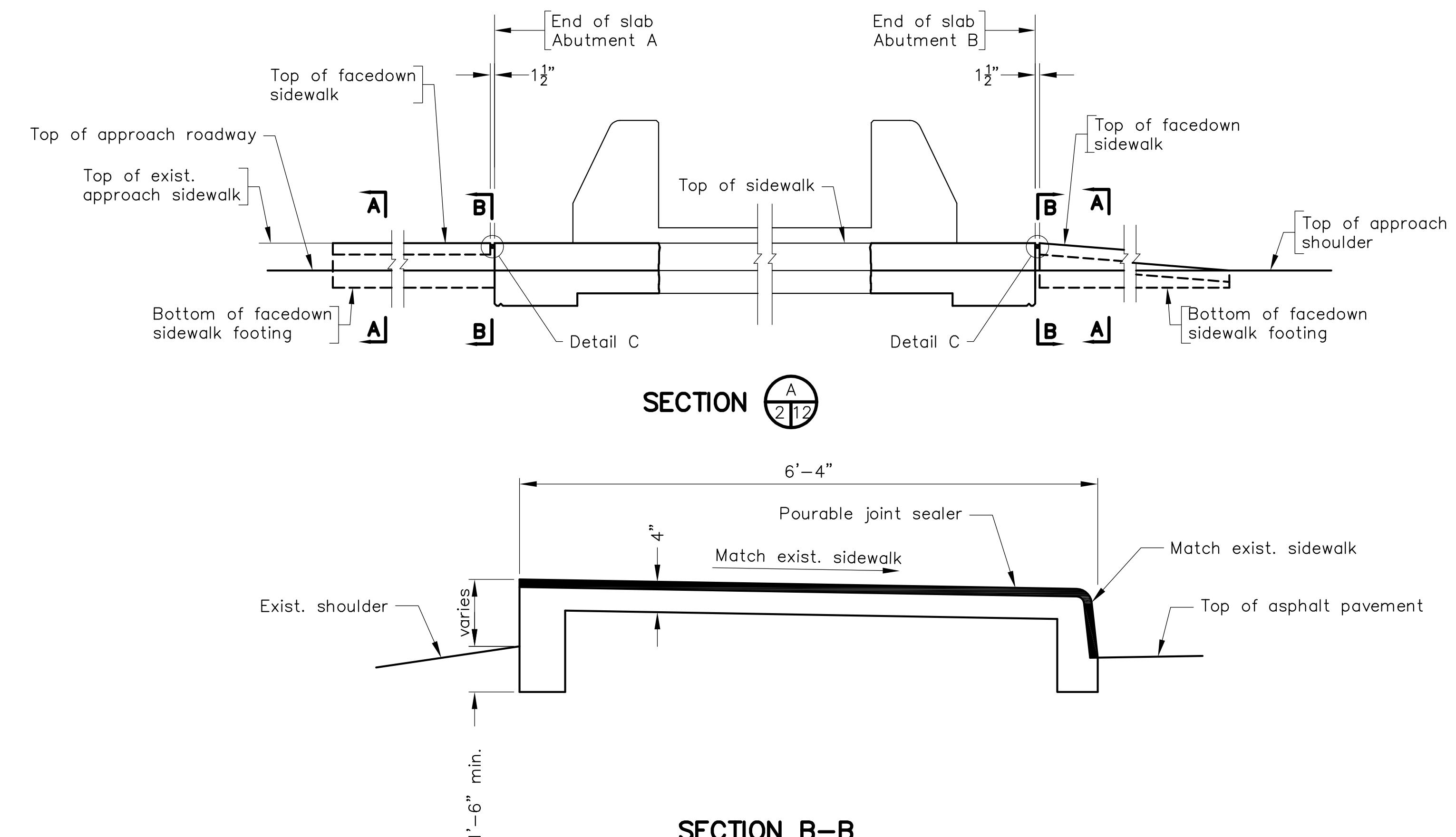
Not to scale

## LEGEND

① Concrete, Class A3  
 ② Compacted aggregate base material, Type I, size no. 21-A (4" depth)  
 ③ 6"x6" W2.9 X W2.9 welded wire fabric

Scale: 1" = 1'-0" unless otherwise shown.

STATE ROUTE VA.	FEDERAL AID PROJECT		STATE ROUTE PROJECT	SHEET NO. 12
	—	—		



Notes:

See Sheet 11 for deck extension details details.

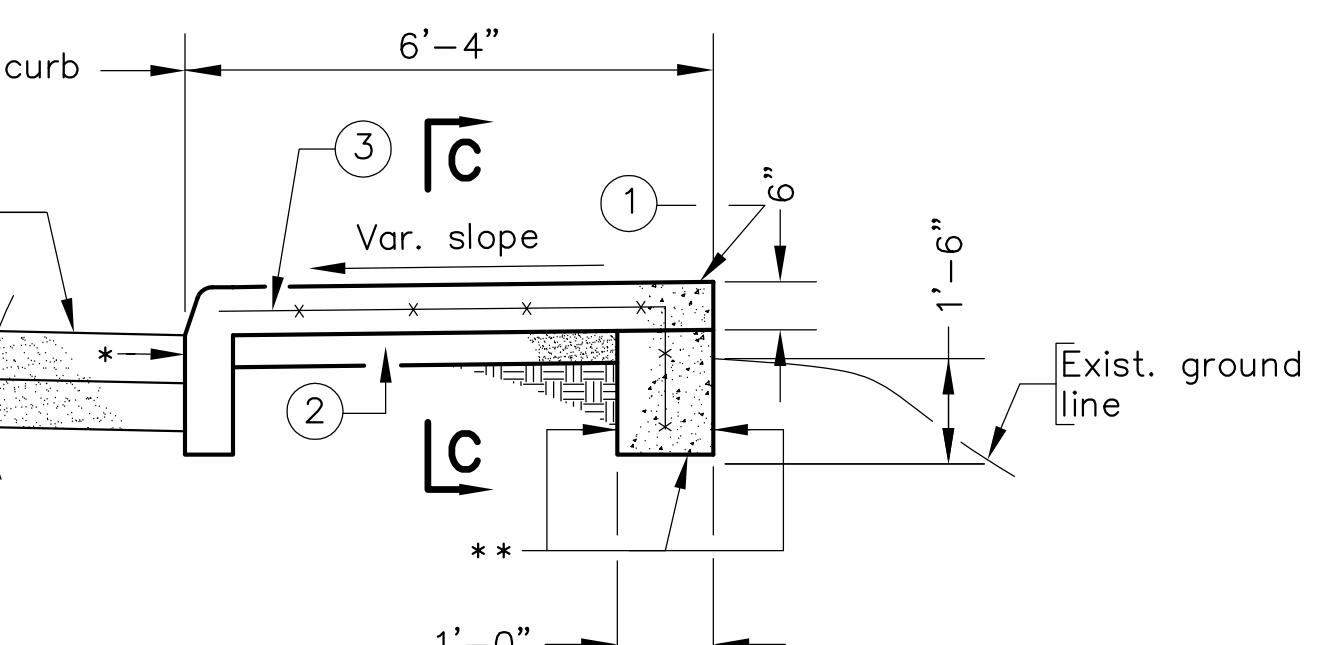
Concrete for facedown sidewalk shall be Class A3 General.

All cost associated with Pourable joint sealer (1 1/2") shall be included in price bid "Facedown Sidewalk".

All costs associated with removing, storing, and re-installing wooden split rail fence at Abutment A shall be included in price bid "Facedown Sidewalk".

The Contractor shall install plastic sleeve for wooden split rail fence post at Abutment A that matches existing conditions. All costs associated with the plastic sleeve shall be included in price bid "Facedown Sidewalk".

				SCHWARTZ & ASSOCIATES, INC. CONSULTING ENGINEERS 7331 TIMBERLAKE ROAD LYNCHBURG, VA.
No.	Description	Date		
REVISIONS	COMM. NO. 19035	DATE: JUNE 1, 2021	SCALE: AS NOTED	PLAN NO.: NA



① Concrete, Class A3  
 ② Compacted aggregate base material, Type I, size no. 21-A (4" depth)  
 ③ 6"x6" W2.9 X W2.9 welded wire fabric

\*\* — Cast this section unformed

\* — Contractor shall saw cut exist. asphalt along face of curb and remove existing asphalt sidewalk within the limits.

\* — Contractor shall install plastic sleeve for wooden split rail fence post at Abutment A that matches existing conditions. All costs associated with the plastic sleeve shall be included in price bid "Facedown Sidewalk".

Match exist. sidewalk

Pourable joint sealer

Top of asphalt pavement

Top of approach shoulder

varies

1'-6" min.

6'-4"

Match exist. sidewalk

Pourable joint sealer

Top of asphalt pavement

Top of approach shoulder

varies

1'-6" min.

6'-4"

Match exist. sidewalk

Pourable joint sealer

Top of asphalt pavement

Top of approach shoulder

varies

1'-6" min.

6'-4"

Match exist. sidewalk

Pourable joint sealer

Top of asphalt pavement

Top of approach shoulder

varies

1'-6" min.

6'-4"

Match exist. sidewalk

Pourable joint sealer

Top of asphalt pavement

Top of approach shoulder

varies

1'-6" min.

6'-4"

Match exist. sidewalk

Pourable joint sealer

Top of asphalt pavement

Top of approach shoulder

varies

1'-6" min.

6'-4"

Match exist. sidewalk

Pourable joint sealer

Top of asphalt pavement

Top of approach shoulder

varies

1'-6" min.

6'-4"

Match exist. sidewalk

Pourable joint sealer

Top of asphalt pavement

Top of approach shoulder

varies

1'-6" min.

6'-4"

Match exist. sidewalk

Pourable joint sealer

Top of asphalt pavement

Top of approach shoulder

varies

1'-6" min.

6'-4"

Match exist. sidewalk

Pourable joint sealer

Top of asphalt pavement

Top of approach shoulder

varies

1'-6" min.

6'-4"

Match exist. sidewalk

Pourable joint sealer

Top of asphalt pavement

Top of approach shoulder

varies

1'-6" min.

6'-4"

Match exist. sidewalk

Pourable joint sealer

Top of asphalt pavement

Top of approach shoulder

varies

1'-6" min.

6'-4"

Match exist. sidewalk

Pourable joint sealer

Top of asphalt pavement

Top of approach shoulder

varies

1'-6" min.

6'-4"

Match exist. sidewalk

Pourable joint sealer

Top of asphalt pavement

Top of approach shoulder

varies

1'-6" min.

6'-4"

Match exist. sidewalk

Pourable joint sealer

Top of asphalt pavement

Top of approach shoulder

varies

1'-6" min.

6'-4"

Match exist. sidewalk

Pourable joint sealer

Top of asphalt pavement

Top of approach shoulder

varies

1'-6" min.

6'-4"

Match exist. sidewalk

Pourable joint sealer

Top of asphalt pavement

Top of approach shoulder

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# MAINTENANCE OF TRAFFIC GENERAL NOTES

STATE	FEDERAL AID		STATE	SHEET NO.
ROUTE	PROJECT	ROUTE	PROJECT	14
VA.	—	—	—	—

## GENERAL

Unless otherwise approved or directed by the Engineer, the Contractor shall plan and execute the work in accordance with the Maintenance of Traffic Plans.

Traffic control devices and safety measures shall comply with

USDOT Manual of Uniform Traffic Control Devices (2009)  
Virginia Work Area Protection Manual, 2011 with Rev. 1, 2015  
and current revisions.  
VDOT Road and Bridge Standards (2016)  
VDOT Road and Bridge Specifications (2020)

The suggested traffic control features depict the major traffic control items. Daily control of traffic including the placement, maintenance and removal of traffic control devices shall be the Contractor's responsibility.

It is not the intent of the traffic control features designated on the plans to enumerate every detail which must be considered during the construction, but only to indicate the general handling of traffic. The Contractor shall submit a detailed traffic control plan to the Engineer for approval prior to beginning construction.

The Engineer shall be notified at least 72 hours prior to any modifications to existing pavement markings.

The clear zone shall be maintained free of parked equipment and stored materials or otherwise protected in accordance with the Work Area Protection Manual.

All Signs, Group 2 Channelizing Devices, Temporary Traffic Signals, barricades, and any other devices used in the construction zone shall be furnished by the Contractor and shall be kept clean and properly aligned at all times.

All traffic signs required for this project shall be furnished, erected and maintained by the Contractor.

The work shall be performed in one lane at a time so that the other lane is kept open to traffic. Unless otherwise directed, a clear roadway width of no less than 10'-0" shall be maintained for traffic.

Group 2 channeling Devices, Pavement Markings and Type III Barricade, shall be installed as directed by the Engineer. Eradication of existing pavement marking shall be performed as directed by the Engineer.

Prior to any ground disturbance activities, the contractor shall contact Miss Utility.

Contractor shall install 10' width restriction signs prior to any lane closures on Eddy Avenue bridge (see sheets 17 & 18). Contractor shall contact DMV, Christi Gayne (804) 497-7145, 10 days prior to implementing lane width restrictions and when lane width restrictions are removed. This will help avoid issues with over width vehicles typically allowed by permits.

Before construction begins, the Contractor shall submit a detailed plan for review and approval to the Engineer for protecting pedestrian traffic on the trail that crosses under this bridge. The trail shall remain open at all times during construction. All costs for submitting detailed protection plan, furnishing, installation and removal of all proposed protection devices shall be included in Lump Sum bid "Maintenance of Traffic".

The contractor shall work around all utilities on this project.

One (1) sidewalk shall remain open to pedestrian traffic at all times during construction. Contractor shall submit a detailed sidewalk detour plan to the Engineer for review and approval prior to any sidewalk closures.

All costs shall be included in Lump Sum bid "Maintenance of Traffic".

## SIGNS

Construction signs shall be furnished, installed and maintained by the Contractor.

Sign spacing and location shall be adjusted to fit field conditions as directed by the Engineer.

All construction signs that govern traffic flow through the work zone shall be covered or removed and stored away from traffic when not in use.

The Contractor shall temporarily cover any existing signs that are contrary to construction signs and uncover these at the completion of the project as directed by the Engineer.

## CONSTRUCTION PAVEMENT MARKINGS

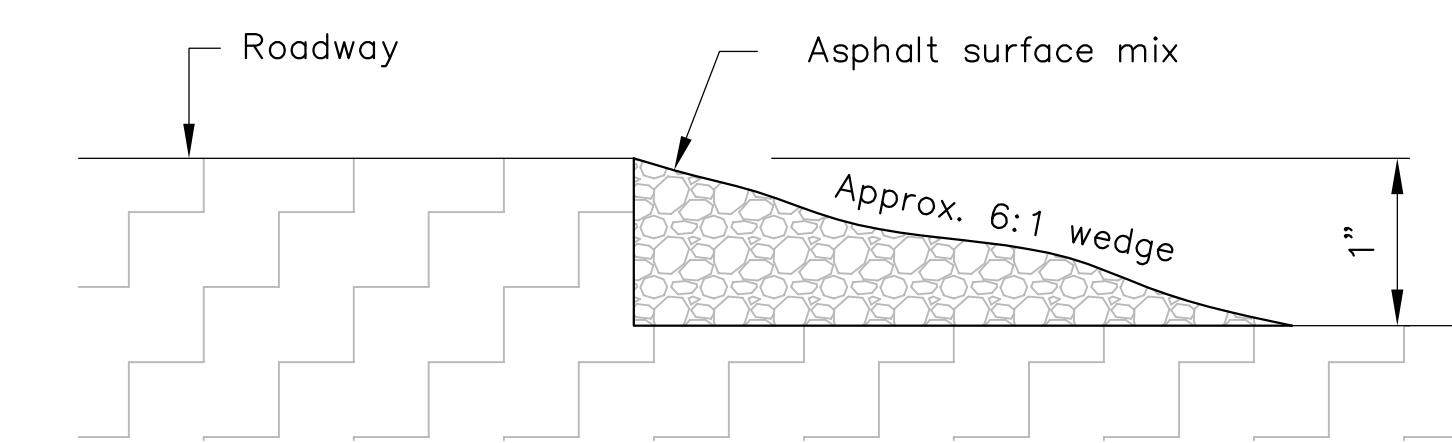
All temporary pavement markings shall be furnished and installed by the Contractor.

All temporary pavement markings shall be 'Type D, Class III'.

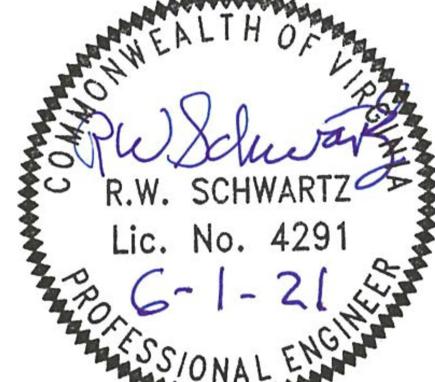
## PERMENANT PAVEMENT MARKINGS

All permanent pavement markings shall be furnished and installed by the Contractor as shown on this sheet.

## TEMPORARY WEDGE DETAIL



All areas milled below existing pavement shall be backfilled with asphalt surface mix to form an approximate 6:1 wedge against the existing pavement surface for the safety and protection of vehicular traffic. All costs for furnishing, placement, maintaining and removal of 6:1 wedge shall be included in Lump Sum bid for "Maintenance of Traffic" and no additional compensation will be allowed.

				<b>SCHWARTZ &amp; ASSOCIATES, INC.</b> <b>CONSULTING ENGINEERS</b> <b>7331 TIMBERLAKE ROAD</b> <b>LYNCHBURG, VA.</b>
No.	Description	Date		
REVISIONS				
For Table of Revisions, see Sheet 2.				
Not to Scale				
DESIGNED BY: MBH DRAWN BY: MBH CHECKED BY: RWS				
SCALE: AS NOTED				
PLAN NO.: NA				
COMM. NO. 19035				
DATE: JUNE 1, 2021				
SHEET: 14 OF 21				

STATE	FEDERAL AID		STATE	SHEET NO.
ROUTE	PROJECT	ROUTE	PROJECT	15
VA. —	—	—	—	

# TRAFFIC MANAGEMENT PLAN

## PROJECT DESCRIPTION

This project entails maintenance repair of Eddy Avenue over Roanoke River (Structure No. 8007) located in the City Of Salem, Virginia. Eddy Avenue is classified as an Urban Collector with a posted speed limit of 25 mph with 1 lane going in each direction (2018 ADT 4,200). The existing travel lanes will be affected by the project work. Travelers include Local Residents, Commuters, Trucks and through Vehicles.

The approach roadway improvements extend approximately 100' to the East and West of the Bridge Approach Slabs. Speed limit is based on existing regulatory signs. Speed limit shall remain 35 mph during construction.

This project is a Type A, Category I Project.

## SPECIAL DETAILS

Special details for Maintenance of Traffic are shown on Sheets 17-21.

## PUBLIC COMMUNICATIONS PLAN

### NOTIFICATIONS:

The contractor shall provide advanced Notifications of all Lane Closures (72 hours minimum) to the City Engineer and Project Manager. The City Engineer will communicate with all agencies and schools in close proximity, radio, television and emergency services, as determined appropriate.

### TRANSPORTATION OPERATIONS PLAN:

1) The following is a list of local emergency contact agencies:

Virginia State Police Division Area 10 – (540) 375-3078  
 City of Salem Police – (540) 375-3080  
 City Fire Department – (540) 375-3080  
 911 Center – 911  
 Haz-Mat Center (if spills involved) – 911

2) Procedures to respond to traffic incidents that may occur in the work zone:

- Contractor to notify City Police and Inspector in charge.
- Depending upon severity of incident, Contractor may have to shut down work.
- Upon arrival on scene, City Police to determine response necessary to allow traveling public around incident.
- Inspector to notify Construction Manager of incident.

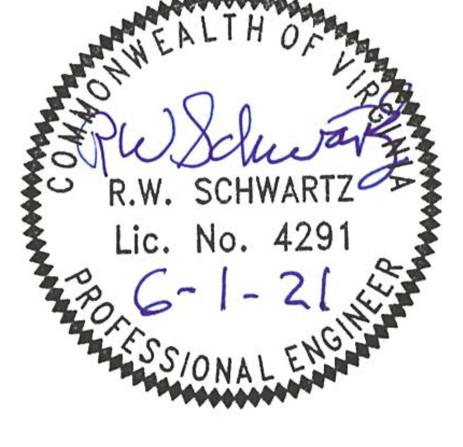
3) Process of Notification of incident to be followed is:

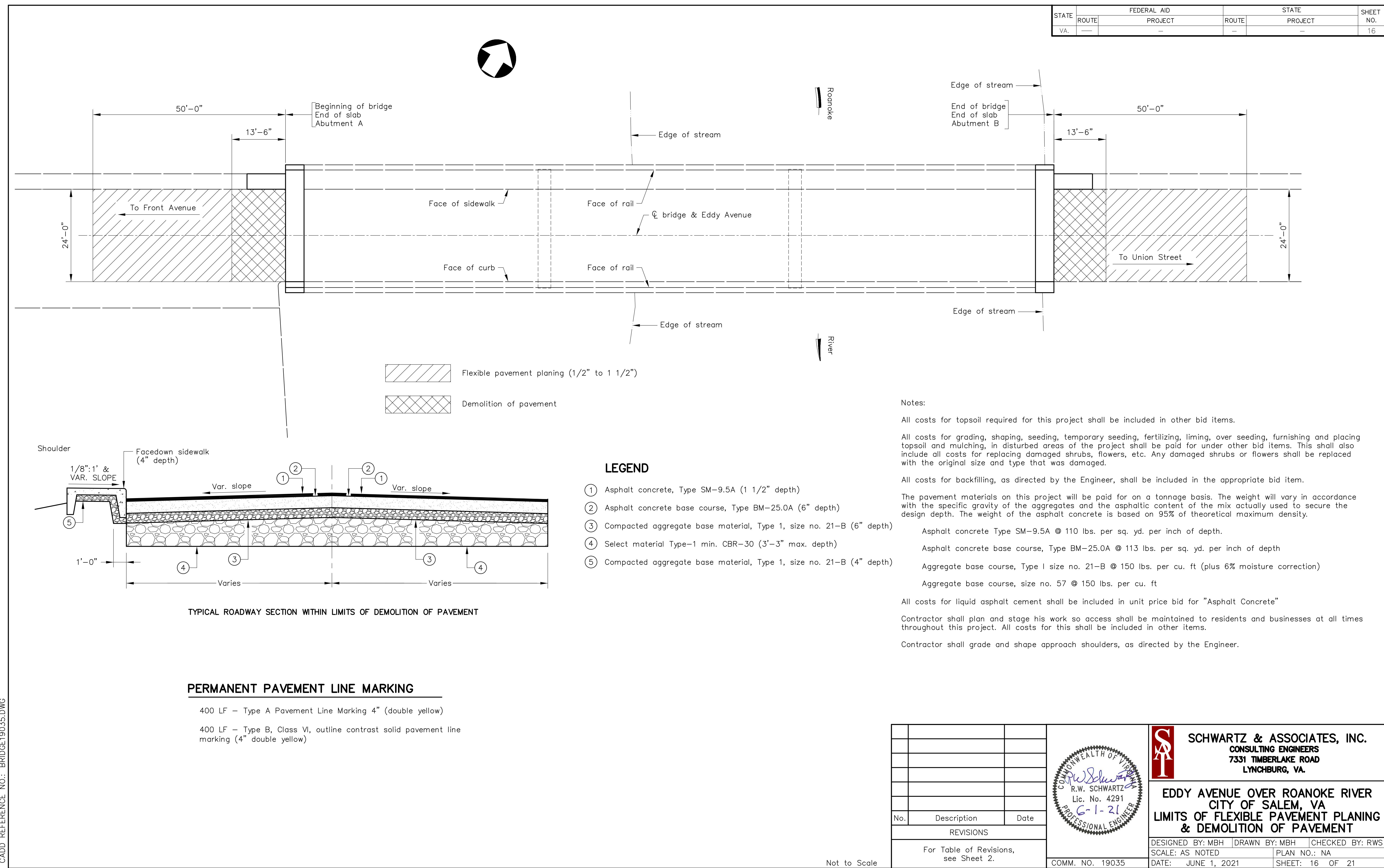
Contractor to call:

Project Inspector –
Inspector To Be Determined
Project Manager (Construction Manager) –
TBD
City Engineer –
William Simpson, P.E. ----- 540-375-3032

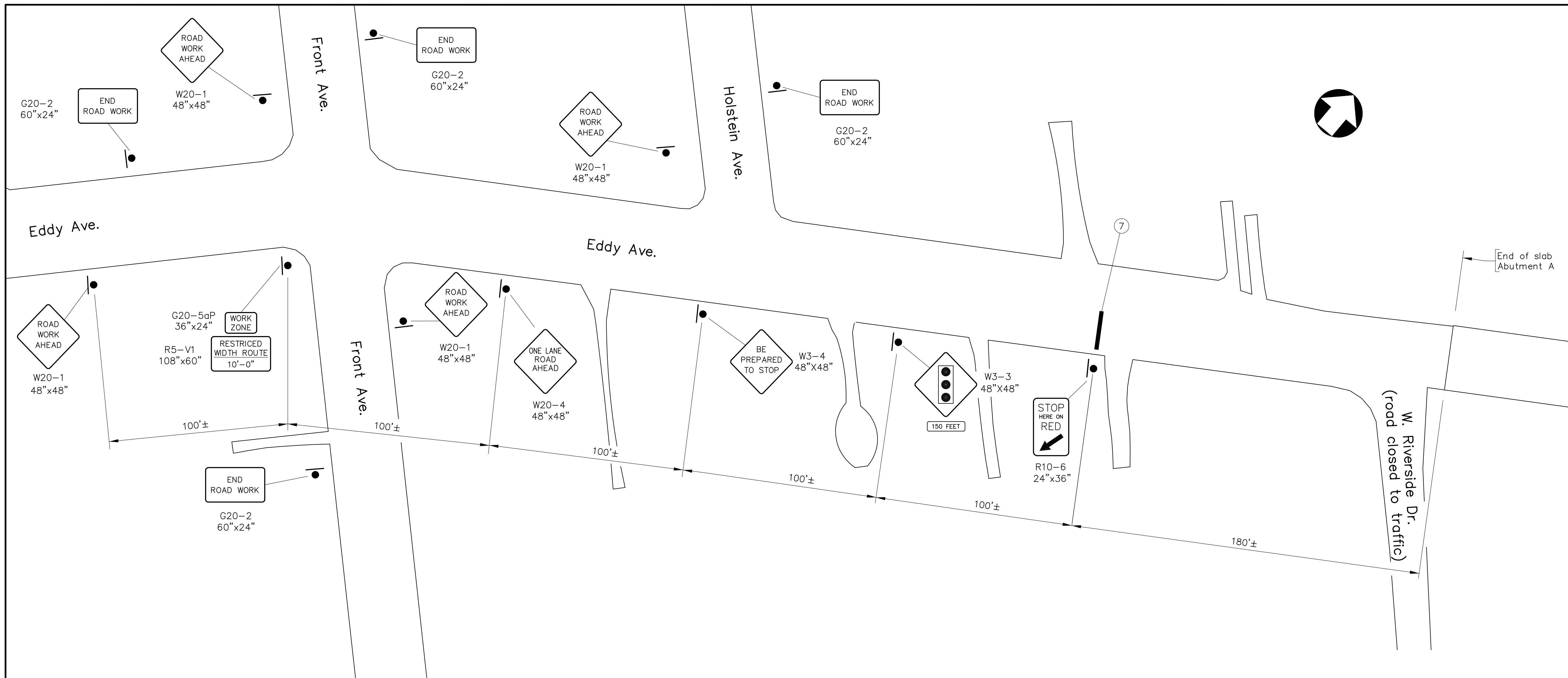
4) The City Police will take control of the incident and direct its clearing and restoration to normal traffic conditions.

5) The City Police report of the incident will be reviewed by the City Engineer and Construction Engineer to determine if any modification to the Temporary Traffic Control Plan is necessary. If it is necessary to alter the plan, then a meeting will be called with the Contractor, City project personnel, Engineer and City Police (if necessary) to discuss modification and implementation of an improved traffic control plan.

				<b>SCHWARTZ &amp; ASSOCIATES, INC.</b> <b>CONSULTING ENGINEERS</b> <b>7331 TIMBERLAKE ROAD</b> <b>LYNCHBURG, VA.</b>
No.	Description	Date		
REVISIONS				
For Table of Revisions, see Sheet 2.				
Not to Scale				
COMM. NO. 19035				
DATE: JUNE 1, 2021				
SHEET: 15 OF 21				



STATE VA.	FEDERAL AID		STATE		SHEET NO. 17
	ROUTE —	PROJECT —	ROUTE —	PROJECT —	



### SIGN LAYOUT – STAGES 1 & 2

#### LEGEND

- Type III Barricade (L=8') req'd.
- - Temporary construction sign
- - Group 2 channelizing devices
- Illuminated flashing amber arrow, Type C
- Pavement line eradication
- ← - Traffic pattern

#### TEMPORARY CONSTRUCTION ITEMS

- ① Group 2 channelizing devices at 20' spa.
- ② 4" Construction pavement marking (Type D, Class III – white)
- ③ 8" Construction pavement marking (Type D, Class III – white)
- ④ 4" Construction pavement marking (Type D, Class III – yellow)
- ⑤ 8" Construction pavement marking (Type D, Class III – Yellow)
- ⑥ Eradication of pavement line markings (Double Yellow)
- ⑦ 24" Construction pavement marking (Type D, Class III – white)

Note:

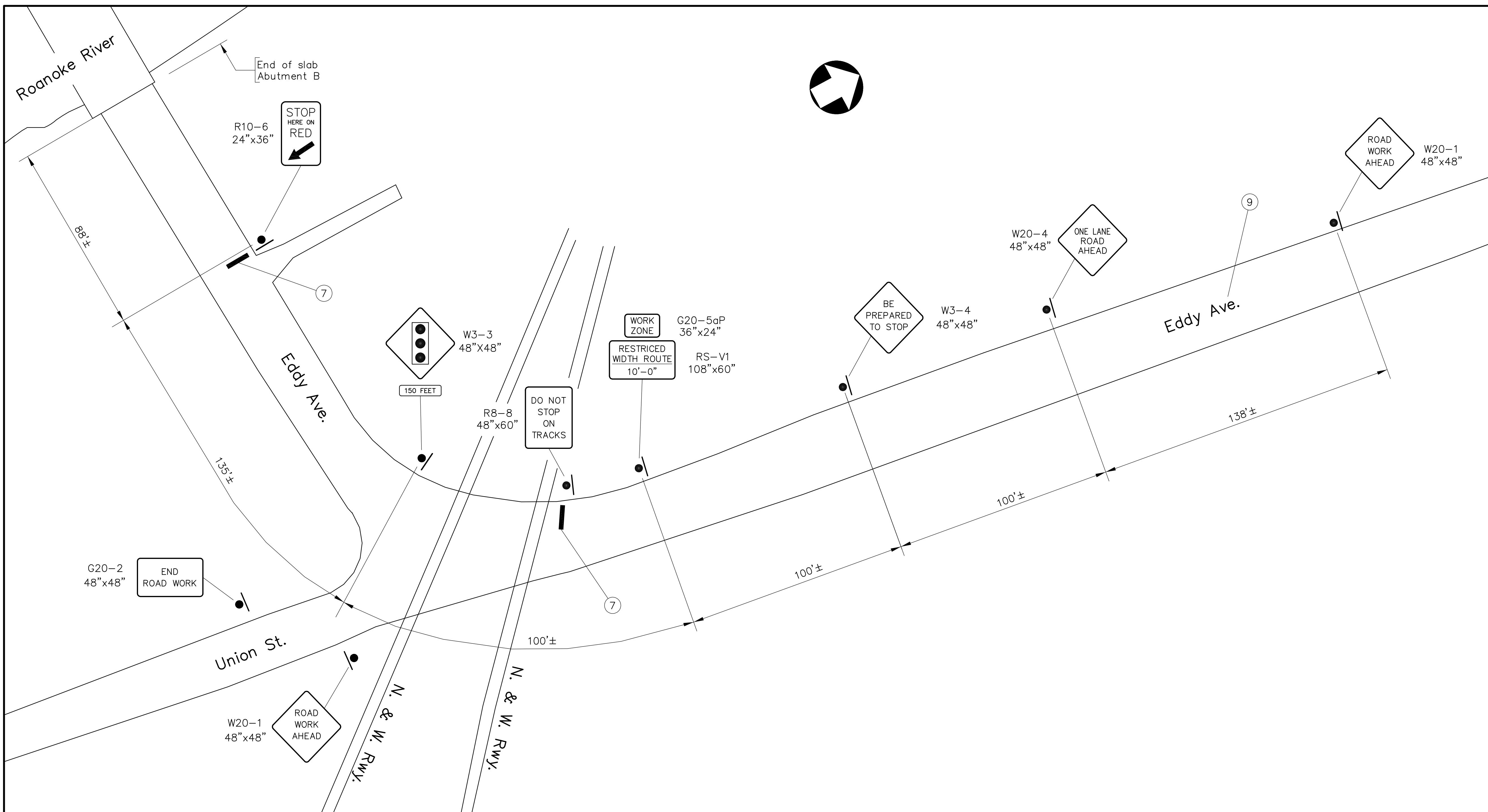
See Sheet 19 for additional traffic control notes.

No.	Description	Date
REVISIONS		
For Table of Revisions, see Sheet 2.		
Not to Scale		
COMM. NO. 19035		DATE: JUNE 1, 2021
DRAWN BY: MBH		CHECKED BY: RWS
SCALE: AS NOTED		PLAN NO.: NA

SCHWARTZ & ASSOCIATES, INC.  
CONSULTING ENGINEERS  
7331 TIMBERLAKE ROAD  
LYNCHBURG, VA.

EDDY AVENUE OVER ROANOKE RIVER  
CITY OF SALEM, VA  
SIGN LAYOUT – STAGES 1 & 2

STATE	FEDERAL AID		STATE	SHEET NO.
	ROUTE	PROJECT		
VA.	—	—	—	18



#### LEGEND

- Type III Barricade (L=8') req'd.
- Temporary construction sign
- Group 2 channelizing devices
- Illuminated flashing amber arrow, Type C
- Pavement line eradication
- ← Traffic pattern

#### TEMPORARY CONSTRUCTION ITEMS

- ① Group 2 channelizing devices at 20' spa.
- ② 4" Construction pavement marking (Type D, Class III - white)
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- ⑦ 24" Construction pavement marking (Type D, Class III - white)

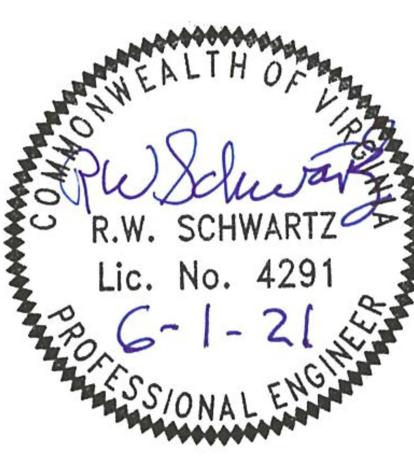
#### SIGN LAYOUT - STAGES 1 & 2

Note:

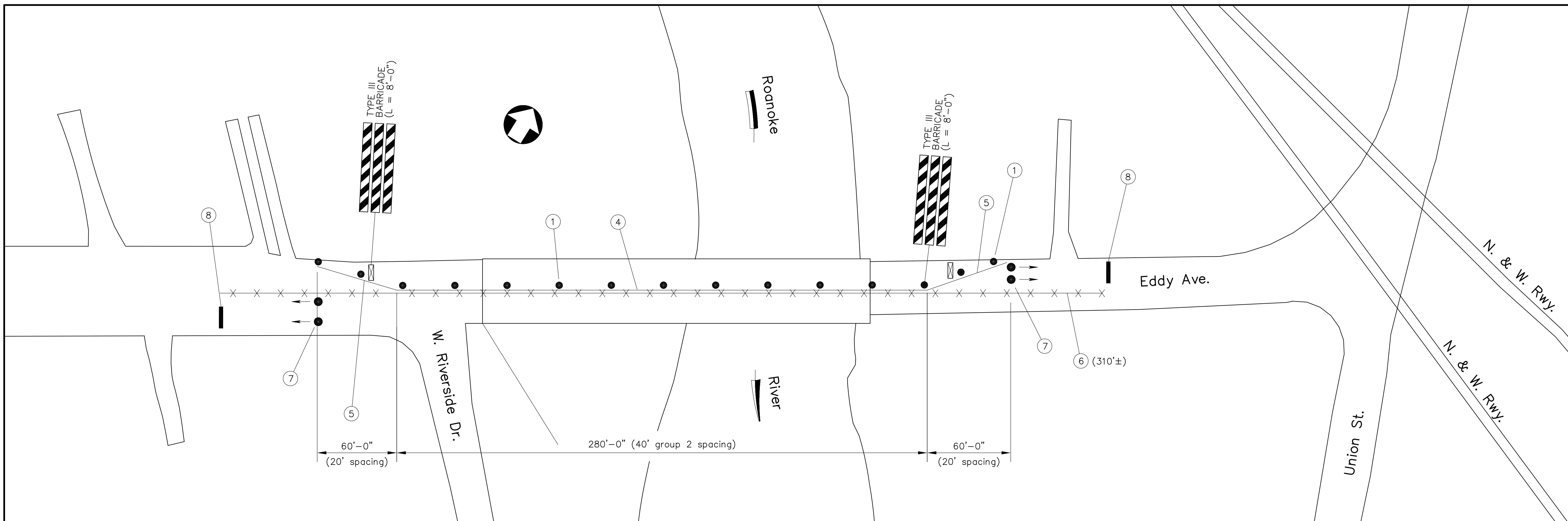
See Sheet 19 for additional traffic control notes.

Not to Scale

			SCHWARTZ & ASSOCIATES, INC.		
			CONSULTING ENGINEERS		
			7331 TIMBERLAKE ROAD		
			LYNCHBURG, VA.		
EDDY AVENUE OVER ROANOKE RIVER			CITY OF SALEM, VA		
SIGN LAYOUT - STAGES 1 & 2					
DESIGNED BY: MBH	DRAWN BY: MBH	CHECKED BY: RWS			
SCALE: AS NOTED	PLAN NO.: NA				
COMM. NO. 19035	DATE: JUNE 1, 2021	SHEET: 18 OF 21			

	<table border="1" style="border-collapse: collapse; width: 100%;"> <tr> <td style="width: 10%; text-align: center; padding: 2px;">STATE</td> <td style="width: 20%; text-align: center; padding: 2px;">FEDERAL AID</td> <td style="width: 10%; text-align: center; padding: 2px;">STATE</td> </tr> <tr> <td style="text-align: center; padding: 2px;">ROUTE</td> <td style="text-align: center; padding: 2px;">PROJECT</td> <td style="text-align: center; padding: 2px;">ROUTE</td> </tr> <tr> <td style="text-align: center; padding: 2px;">VA.</td> <td style="text-align: center; padding: 2px;">—</td> <td style="text-align: center; padding: 2px;">—</td> </tr> </table>	STATE	FEDERAL AID	STATE	ROUTE	PROJECT	ROUTE	VA.	—	—	19						
STATE	FEDERAL AID	STATE															
ROUTE	PROJECT	ROUTE															
VA.	—	—															
<b>Notes for traffic control:</b>																	
<p>1. Sign spacing shall be adjusted to fit field conditions, as directed by the Engineer.</p> <p>2. All signs, drums, Type III Barricades, and any other devices used in construction zones shall be kept clean and properly aligned at all times.</p> <p>3. All signs that govern traffic flow through a construction zone shall be covered or removed and stored away from traffic when not in use.</p> <p>4. Contractor shall temporarily cover any existing sign who's message contradicts temporary construction signs during construction and uncover them at the completion of the project, as directed by the Engineer.</p> <p>5. All signs shall be field located as directed by the Engineer.</p> <p>6. All signage shall be diamond grade (fluorescent prismatic lens sheeting).</p> <p>7. Prior to any ground disturbance activities, the Contractor shall contact Miss. Utility.</p> <p>8. The Contractor shall work around all overhead utilities on this project.</p> <p>9. All construction signing shall be fabricated and installed in accordance with the 2011 Virginia Work Area Protection Manual &amp; current revisions, the 2009 MUTCD, the Virginia Supplement to the MUTCD, the Standard Highway Sign Manual, the 2020 Virginia Road and Bridge Specification and the 2016 Virginia Road and Bridge Standards.</p> <p>10. All temporary construction pavement line marking shall be done in accordance with the most current edition of the Virginia Work Area Protection Manual.</p>																	
 <p><b>SCHWARTZ &amp; ASSOCIATES, INC.</b> CONSULTING ENGINEERS 7331 TIMBERLAKE ROAD LYNCHBURG, VA.</p> <p><b>EDDY AVENUE OVER ROANOKE RIVER</b> <b>CITY OF SALEM, VA</b> <b>TRAFFIC CONTROL NOTES</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> </tr> <tr> <td style="text-align: center; padding: 2px;">No.</td> <td style="text-align: center; padding: 2px;">Description</td> <td style="text-align: center; padding: 2px;">Date</td> </tr> <tr> <td colspan="3" style="text-align: center; padding: 2px;">REVISIONS</td> </tr> <tr> <td colspan="3" style="text-align: center; padding: 2px;">For Table of Revisions, see Sheet 2.</td> </tr> <tr> <td style="text-align: center; padding: 2px;">COMM. NO. 19035</td> <td style="text-align: center; padding: 2px;">DATE: JUNE 1, 2021</td> <td style="text-align: center; padding: 2px;">SHEET: 19 OF 21</td> </tr> </table>						No.	Description	Date	REVISIONS			For Table of Revisions, see Sheet 2.			COMM. NO. 19035	DATE: JUNE 1, 2021	SHEET: 19 OF 21
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REVISIONS																	
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COMM. NO. 19035	DATE: JUNE 1, 2021	SHEET: 19 OF 21															

STATE ROUTE VA.	FEDERAL AID		STATE		SHEET NO. 21
	ROUTE	PROJECT	ROUTE	PROJECT	



### LANE CLOSURE – STAGE 1

#### LEGEND

- Type III Barricade (L=8') req'd.
- - Temporary construction sign
- - Group 2 channelizing devices
- Illuminated flashing amber arrow, Type C
- Pavement line eradication

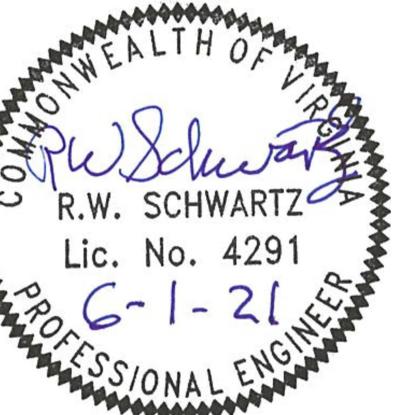
Note:

10'-0" min. clr. roadway shall be maintained at all times.

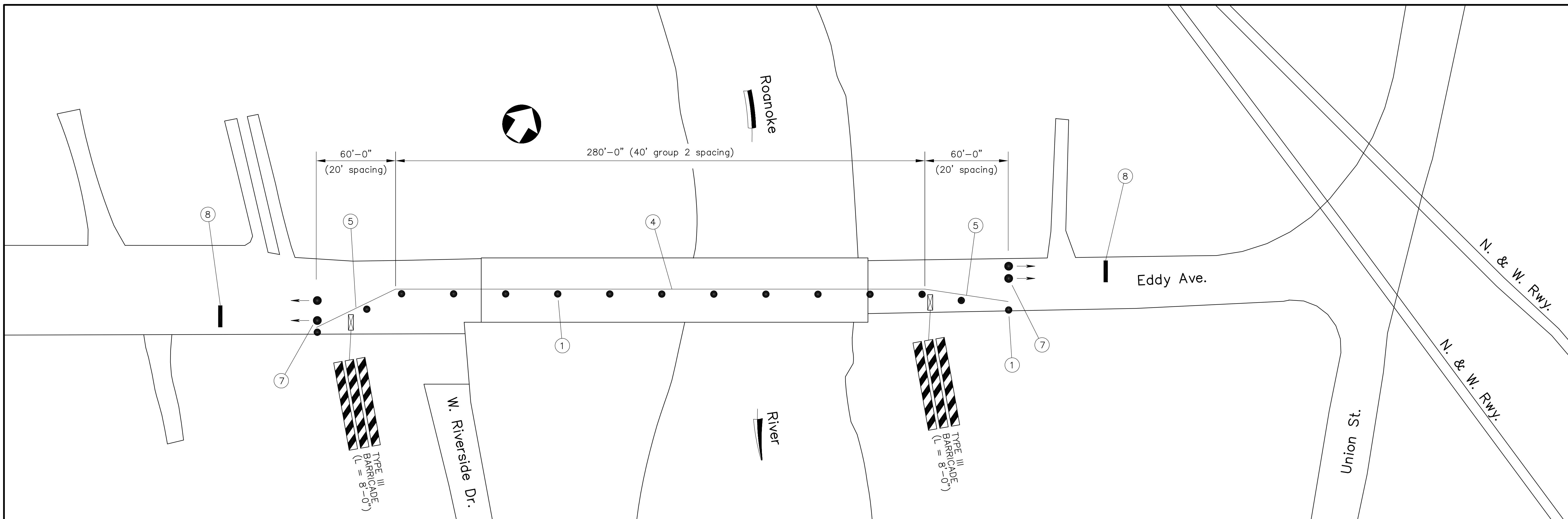
See Sheet 19 for additional traffic control notes.

#### TEMPORARY CONSTRUCTION ITEMS

- ① Group 2 channelizing devices
- ② 4" Construction pavement marking (Type D, Class III – white)
- ③ 8" Construction pavement marking (Type D, Class III – white)
- ④ 4" Construction pavement marking (Type D, Class III – yellow)
- ⑤ 8" Construction pavement marking (Type D, Class III – Yellow)
- ⑥ Eradication of pavement line markings (Double Yellow)
- ⑦ Temporary Traffic Control Signal
- ⑧ 24" Construction pavement marking (Type D, Class III – white)

				<b>S&amp;T</b> <b>SCHWARTZ &amp; ASSOCIATES, INC.</b> <b>CONSULTING ENGINEERS</b> <b>7331 TIMBERLAKE ROAD</b> <b>LYNCHBURG, VA.</b>
No.	Description	Date		
REVISIONS				
For Table of Revisions, see Sheet 2.				
DESIGNED BY: MBH	DRAWN BY: MBH	CHECKED BY: RWS		
SCALE: AS NOTED		PLAN NO.: NA		
COMM. NO. 19035	DATE: JUNE 1, 2021	SHEET: 20 OF 21		

FEDERAL AID		STATE	
STATE	ROUTE	PROJECT	ROUTE
VA.	—	—	—
			20



### LANE CLOSURE – STAGE 2

#### LEGEND

- Type III Barricade (L=8') req'd.
- Temporary construction sign
- – Group 2 channelizing devices
- Illuminated flashing amber arrow, Type C
- Pavement line eradication

Note:

10'-0" min. clr. roadway shall be maintained at all times.

See Sheet 19 for additional traffic control notes.

#### TEMPORARY CONSTRUCTION ITEMS

- ① Group 2 channelizing devices
- ② 4" Construction pavement marking (Type D, Class III – white)
- ③ 8" Construction pavement marking (Type D, Class III – white)
- ④ 4" Construction pavement marking (Type D, Class III – yellow)
- ⑤ 8" Construction pavement marking (Type D, Class III – Yellow)
- ⑥ Eradication of pavement line markings (Double Yellow)
- ⑦ Temporary Traffic Control Signal
- ⑧ 24" Construction pavement marking (Type D, Class III – white)

No.	Description	Date
REVISIONS		
For Table of Revisions, see Sheet 2.		
Not to Scale		
		DESIGNED BY: MBH DRAWN BY: MBH CHECKED BY: RWS
SCALE: AS NOTED		PLAN NO.: NA
COMM. NO. 19035		DATE: JUNE 1, 2021
		SHEET: 21 OF 21

**SCHWARTZ & ASSOCIATES, INC.**  
CONSULTING ENGINEERS  
7331 TIMBERLAKE ROAD  
LYNCHBURG, VA.

**EDDY AVENUE OVER ROANOKE RIVER**  
CITY OF SALEM, VA  
LANE CLOSURE – STAGE 2