

# TOWN OF VIENNA

## DEPARTMENT OF PUBLIC WORKS

### PROPOSED FREEMAN STORE PEDESTRIAN BRIDGE

### CONNECTOR TO W&OD REGIONAL TRAIL

STATE	ROUTE	FEDERAL AID	ROUTE	STATE
		PROJECT		PROJECT
VA.	—	—	N/A	UPC 111404

#### PROJECT ADDRESS:

Freeman Store & Museum  
131 Church Street NE  
Vienna, VA 22180

#### DEVELOPER:

Town of Vienna  
Department of Public Works  
127 Center Street S.  
Vienna, VA 22180  
Contract: Mike Gallagher, P.E.

#### ENGINEER:

Whitman Requardt and Associates  
12700 Fair Lakes Circle, Suite 300  
Fairfax, VA 22033  
Phone: 703-293-9717  
Contact: Tyler Long, P.E.

#### CONVENTIONAL SIGNS

STATE LINE	---
COUNTY LINE	---
CITY/TOWN OR VILLAGE	---
RIGHT OF WAY LINE	---
FENCE LINE	---
UNFENCED PROPERTY LINE	---
FENCED PROPERTY LINE	---
WATER LINE	---
SANITARY SEWER LINE	---
GAS LINE	---
ELECTRIC UNDERGROUND CABLE	---
TRAVELED WAY	---
GUARD RAIL	---
RETAINING WALL	---
RAILROADS	---
BASE OR SURVEY LINE	---

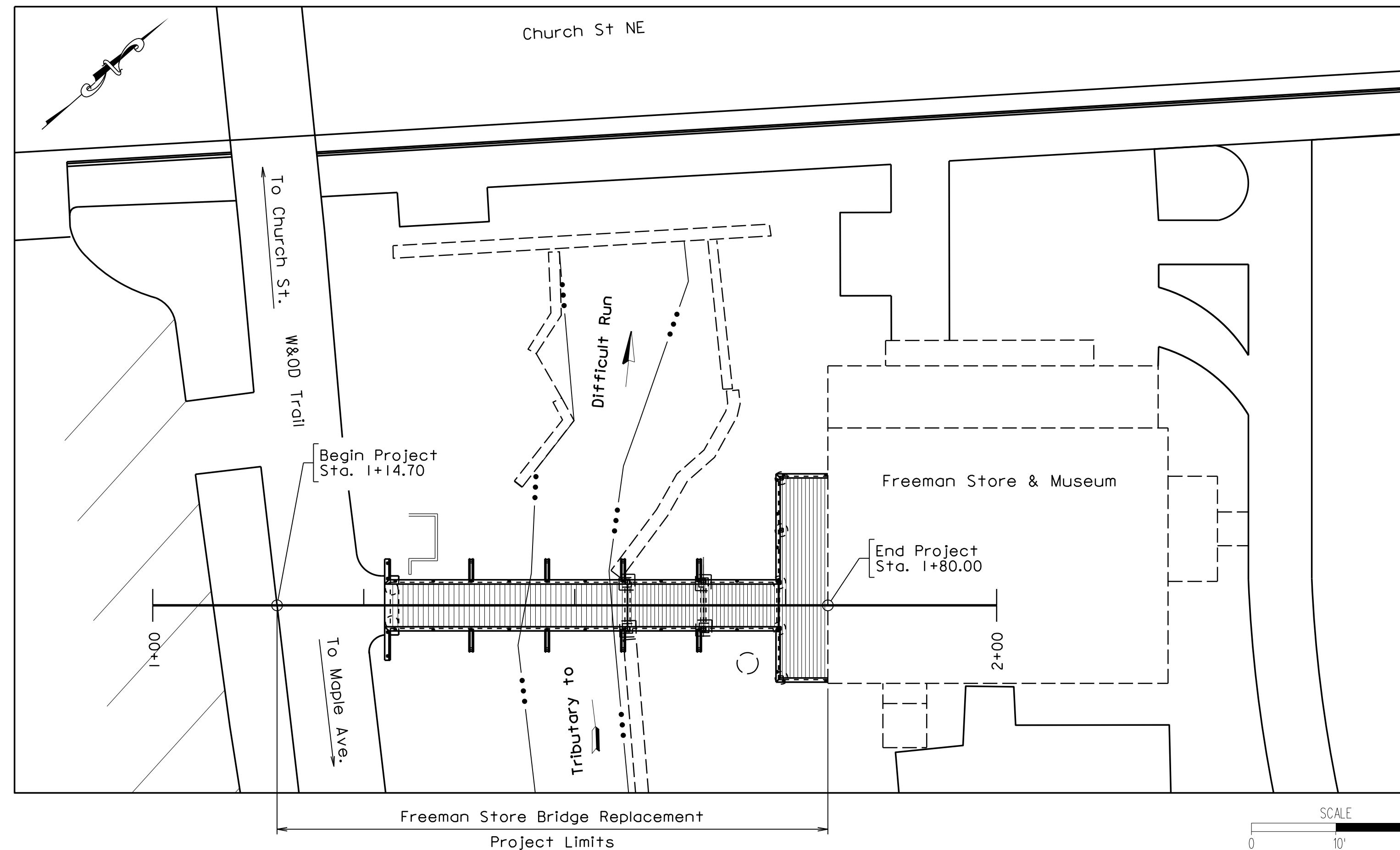
LEVEE OR EMBANKMENT	---
BRIDGES	---
CULVERTS	---
DROP INLET	---
POWER POLES	---
TELEPHONE OR TELEGRAPH POLES	---
TELEPHONE OR TELEGRAPH LINES	---
HEDGE	---
TREES	---
HEAVY WOODS	---
GROUND ELEVATION	---
GRADE ELEVATION	---

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

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

THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE DEPARTMENT'S 2016 ROAD AND BRIDGE SPECIFICATIONS, 2016 ROAD AND BRIDGE STANDARDS, 2009 MUTCD, 2011 VIRGINIA SUPPLEMENT TO THE MUTCD, 2011 VIRGINIA WORK AREA PROTECTION MANUAL AND AS AMENDED BY CONTRACT PROVISIONS AND THE COMPLETE ELECTRONIC PDF VERSION OF THE PLAN ASSEMBLY.

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



#### VICINITY MAP



#### INDEX OF SHEETS

Sheet No.	Description
1	Title Sheet
2	Plan and Elevation and General Notes
3	Trail Detour Plan
4	E&S Plan / Details
5	Demolition Plan, Elevation, Details
6	Substructure Layout
7	Abutment A Plan Elevation and Sections
8	Abutment A Details
9	Pier 1
10	Pier 2
11	Pier 3
12	Transverse Sections
13	Framing Plan - Steel Span
14	Framing Plan - Timber Spans
15	Superstructure Details
16	Railing Plan and Elevation
17	Railing Sections and Details

#### LOCALLY ADMINISTERED PROJECTS

Town of Vienna, Virginia

RECOMMENDED FOR APPROVAL FOR CONSTRUCTION

DATE DIRECTOR OF PUBLIC WORKS

#### PREFINAL PLANS



Whitman, Requardt & Associates, LLP

EMERGENCY POLICE - FIRE - RESCUE 911

DEC. 2018

TOWN OF VIENNA, VIRGINIA

DEPARTMENT OF PUBLIC WORKS

127 CENTER STREET S. VIENNA, VIRGINIA 22180

DEPARTMENT OF PUBLIC WORKS  
703-255-6380

FREEMAN STORE PEDESTRIAN BRIDGE  
SITE PLAN, VICINITY MAP  
AND INDEX OF SHEETS

PROJECT NO: ###

PLAN NO.

DESIGNED: WRA  
DRAFTED: WRA  
CHECKED: WRA

SHEET

1 of 17

WHITMAN REQUARDT & ASSOCIATES  
RICHMOND, VA  
STRUCTURAL ENGINEER

APPROVED BY THE DEPARTMENT OF PUBLIC WORKS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

STATE	FEDERAL AID		STATE	
	ROUTE	PROJECT	ROUTE	PROJECT
VA.	—	—	N/A	UPC 111404

GENERAL NOTES:

- Width: 5'-0" face-to-face of railing.
- Span layout: 28'-1 1/4" steel rolled beam simple span, 9'-0"-9'-0"-5'-9" timber simple spans
- Capacity: 90 psf Pedestrian Live Loading;
- Drainage area: 329 acres
- Specifications:
- Construction: Virginia Department of Transportation Road and Bridge Specifications, 2016.
- Design: AASHTO LRFD Bridge Design Specifications, 7th Edition, 2014; and VDOT Modifications.
- LRFD Guide Specifications for Design of Pedestrian Bridges, 2nd Edition, 2009.
- Standards: Virginia Department of Transportation Road and Bridge Standards, 2016; including all current revisions.
- The Contractor shall be responsible for obtaining all necessary permits from the Town of Vienna and Fairfax County as applicable before beginning of construction.

The Contractor shall field verify all dimensions, locations and elevations of existing structures shown on the current drawings. All discrepancies between field conditions and these plans shall be brought to the attention of the project manager for the City before proceeding with work that is directly affected by the discrepancy.

Any deviations from approved plans and/or Specifications must be approved by the Engineer/Owner in writing prior to the start of the affected portion of work.

Contractor to be aware of site constraints including but not limited to specimen trees, HVAC equipment, building utilities both on and near the bridge structure, and the immediate proximity to the historic Freeman Store Building that require protection and care to be taken.

All structural steel, including sole plates, shall be ASTM A709 Grade 50 and shall be hot dipped galvanized.

Concrete in substructure shall be Class A3.

Deformed reinforcing bars shall conform to ASTM A615 Grade 60. All reinforcing bar dimensions on the detailed drawings are to centers of bars except where otherwise noted and are subject to fabrication and construction tolerances.

All timber shall be pressure treated and shall conform to VDOT Specifications.

All timber members shall be dried to a moisture content of 19 percent or less after treatment.

All timber shall be Southern pine, Graded select structural, graded and marked in conformance with the Southern Pine Inspection Bureau (SPIB) grading rules and standards.

All timber ends shall be cut square. Cut ends shall not be placed in contact with ground or concrete. Bolt holes for through bolts shall be 1/16" larger in diameter than the bolt size.

Timber shall be predrilled for lag bolts in accordance with manufacturers recommendations.

All cuts and holes in timber shall be field treated in accordance with AWP standards and shall be field treated a second time no sooner than four hours after completion of the first field treatment.

All hardware for timber connections, including nails shall be hot dipped galvanized in accordance with VDOT Specifications or stainless steel.

Footings shall bear on firm material. For bearing requirements, see the Spread Footing Data Table on sheet 6.

B.M.: Threshold of Freeman Store side entrance, Elev. 353.58



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PREFINAL PLANS

EMERGENCY POLICE – FIRE – RESCUE 911					DEC. 2018			
TOWN OF VIENNA, VIRGINIA								
DEPARTMENT OF PUBLIC WORKS								
127 CENTER STREET S. VIENNA, VIRGINIA 22180								
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WHITMAN REARDON & ASSOCIATES  
RICHMOND, VA  
STRUCTURAL ENGINEER

ELEVATION ALONG FRONT RAIL

PLAN

Proposed Pavement Key:

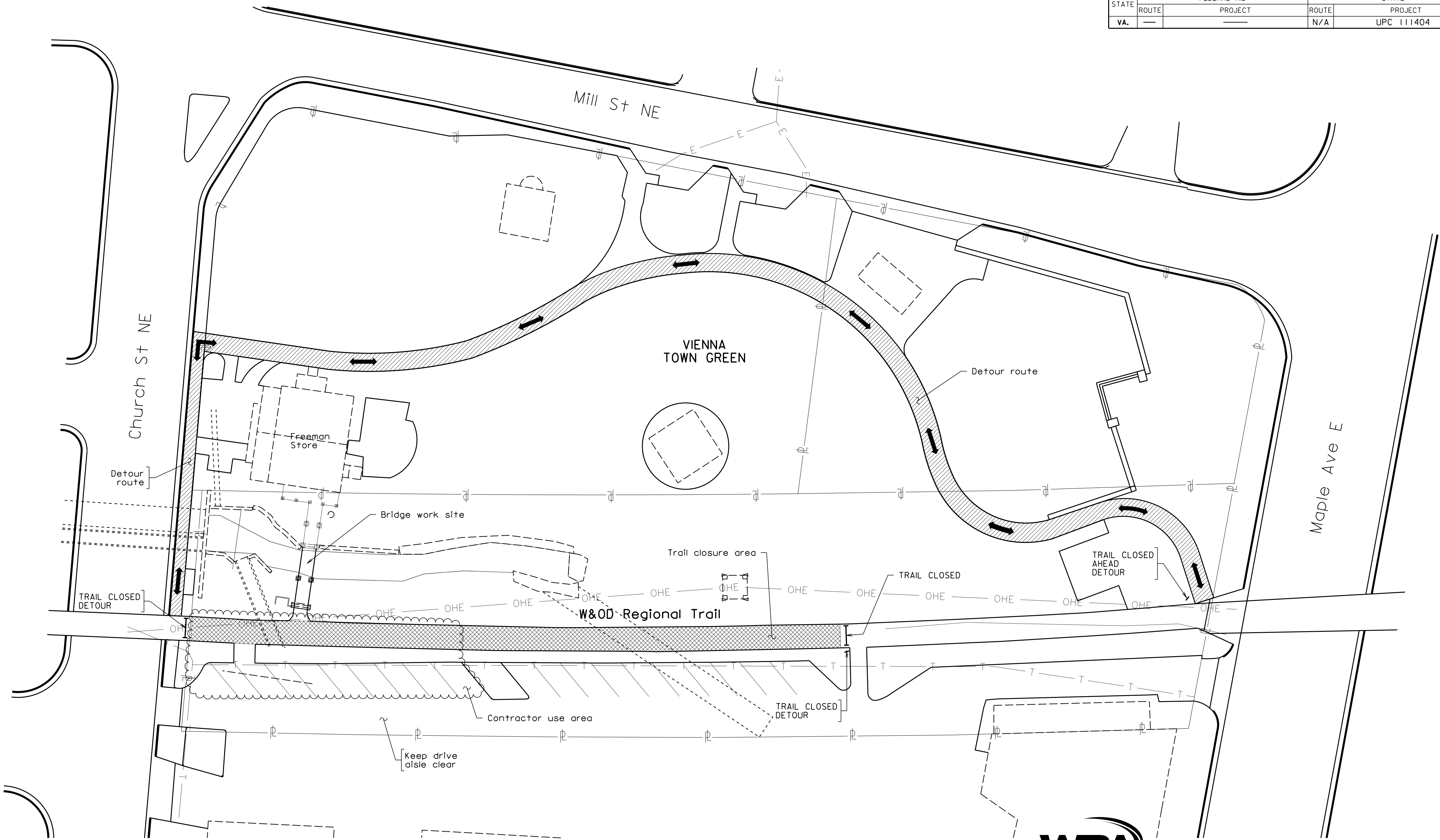
W&OD Trail Pavement Note:  
Replace existing pavement with a minimum of 2" Asphalt Type SM 9.5A over 4" No. 21A Stone subbase or match existing trail section

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

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

Trail Detour Plan.dgn

STATE	FEDERAL AID		STATE	
	ROUTE	PROJECT	ROUTE	PROJECT
VA.	—	—	N/A	UPC 111404



Trail Detour Notes:

Contractor to prepare and submit their plan for the trail closure area and detour. Plan shall include route marking, sign details, defined work areas, and appropriate public protection measures around work areas.

Detour plan to be reviewed and approved by all jurisdictions having authority including but not limited to Town of Vienna and Northern Virginia Regional Park Authority.

A minimum of 30 calendar days required for review prior to installation of trail closure and detour.

Detour route shown for pedestrian and bikes. Bikes shall be notified to dismount and walk detour.

- Signed W&OD Trail Detour Route
- Closed section of W&OD Trail

Scale: 1" = 20'-0"



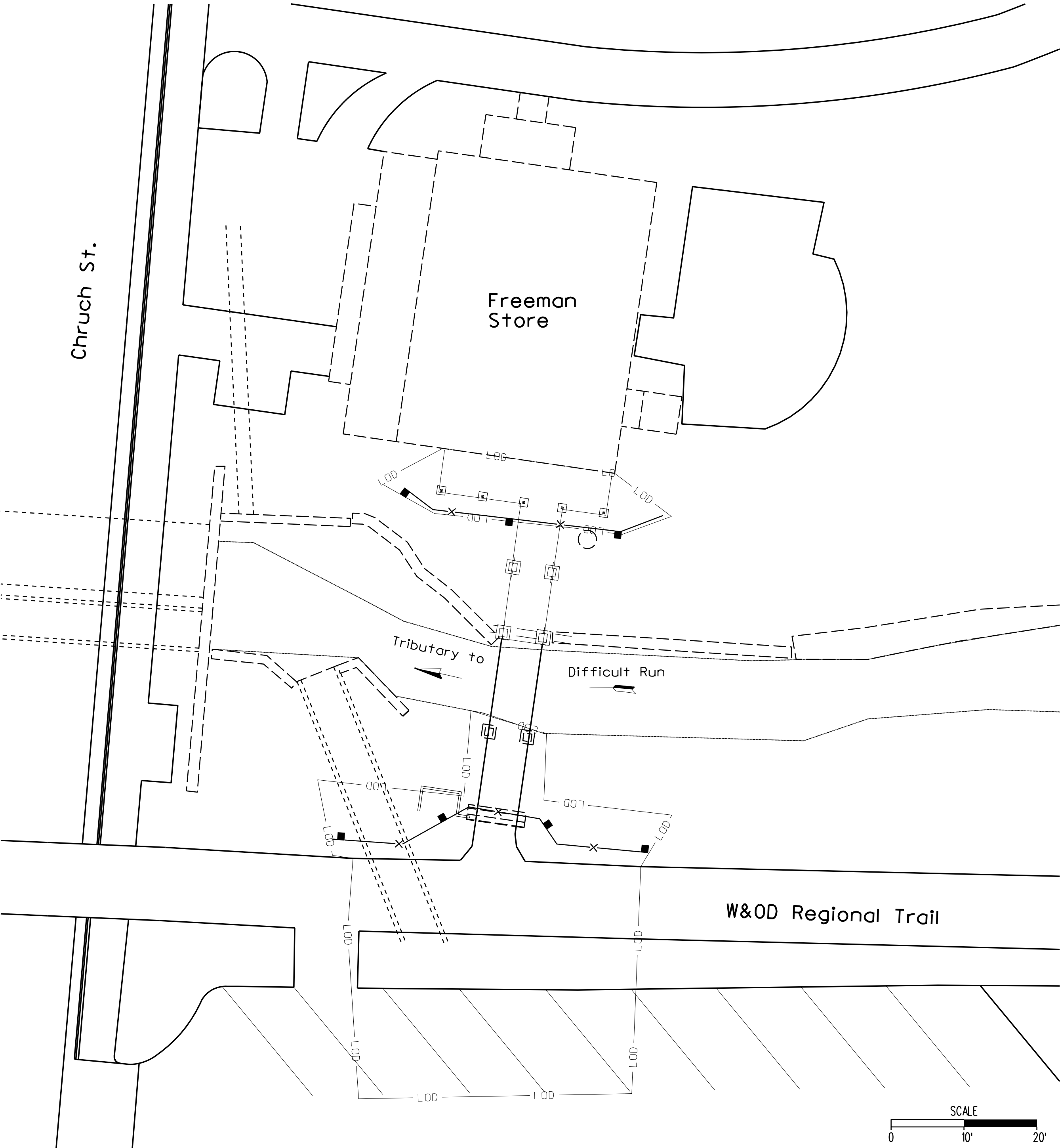
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PREFINAL PLANS

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						FREEMAN STORE PEDESTRIAN BRIDGE TRAIL DETOUR PLAN						
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	APPROVED BY THE DEPARTMENT OF PUBLIC WORKS											
	WHITMAN REQUARDT & ASSOCIATES RICHMOND, VA STRUCTURAL ENGINEER											

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PLAN

PRACTICE 5.2: SANDBAG/STONE DIVERSION

Dewatering practice for temporarily diverting stream flow around a portion of a stream's width during construction

DESCRIPTION

This practice involves installing a barrier in a portion of the stream channel for the purpose of diverting flow around an area of the stream to provide dry conditions during construction.

APPROPRIATE USES

- When installation of stream practices requires diverting flow around an area of the streambank and a portion of the stream bed to maintain workable conditions.
- To enhance construction conditions to repair small, localized areas of bank failure or implement bank stabilization/protection measures.

LIMITATIONS

- Results in smaller area of stream access compared to other temporary in-stream construction methods.
- May fail and erode during storm events.
- For large channels, PRACTICE 5.4 Portable Dams/Barriers may be more suitable.

DESIGN REQUIREMENTS AND PROCEDURES

- Height of in-stream barriers shall be the normal base flow depth + 1 foot of freeboard.
- In-stream barrier shall not be greater than 55% of the stream bottom width.
- De-watering pump must be diverted through a dewatering structure per Standard and Specification 3.26 in the Virginia Erosion and Sediment Control Handbook.

MATERIAL SPECIFICATIONS

- In-stream Barrier:** Either riprap per Standard and Specification 3.19: Riprap of the Virginia Erosion and Sediment Control Handbook or sandbags. Sandbags may be filled on site or pre-filled and made of burlap or polypropylene materials which are resistant to ultra-violet radiation, tearing, and puncture and should be woven tightly enough to prevent leakage of the fill material (i.e., sand, fine gravel, etc.).
- Sheeting:** Seamless polyethylene plastic sheeting with a minimum 4-mil thickness impervious and resistant to puncture, tearing and ultraviolet degradation or equivalent.
- Pumping Equipment:** (As needed) Electric, diesel or gasoline venturi, vacuum, or centrifugal primed pump. Appropriately sized rigid intake and discharge pipe/hose with positive restrained joints. Necessary connectors and properly stored fuel.

- Dewatering Structure:** (As needed) Per Standard and Specification 3.26 in the Virginia Erosion and Sediment Control Handbook or sediment/dirt bag per manufacturers specifications.

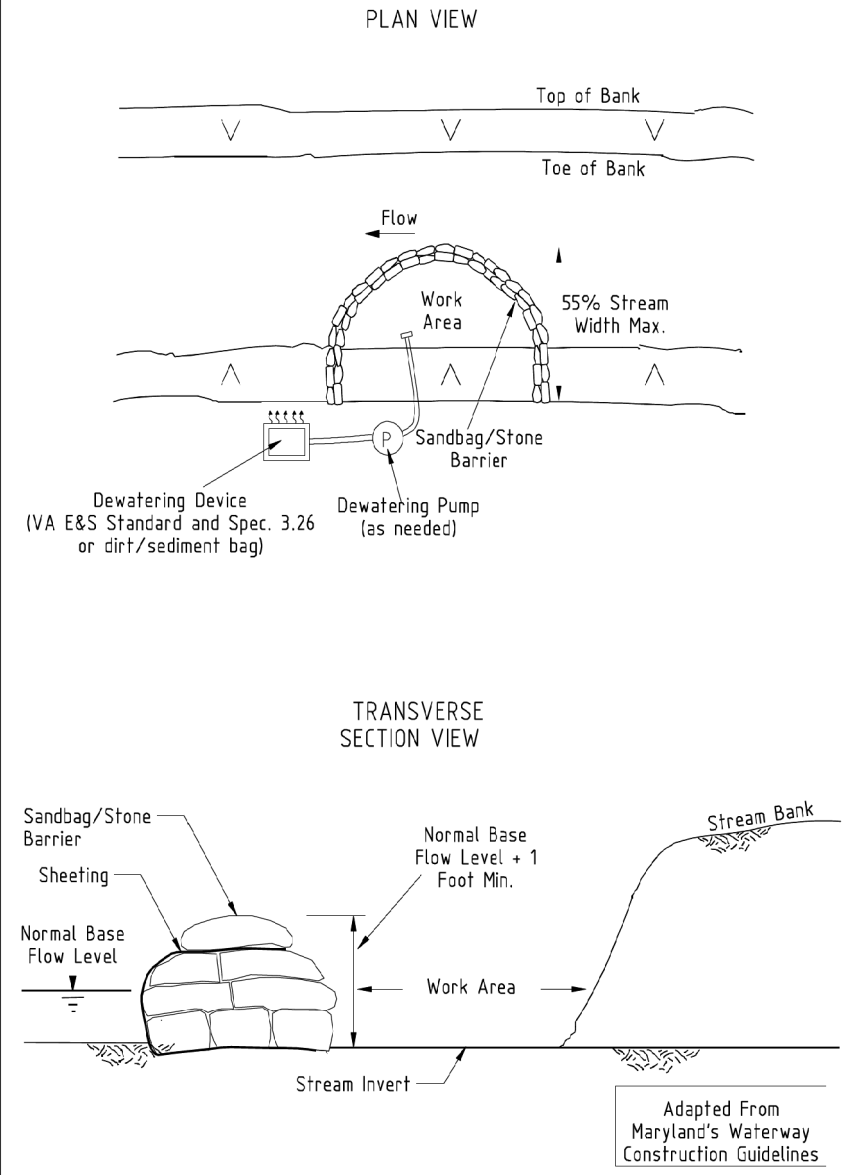
CONSTRUCTION RECOMMENDATIONS

- Sandbag/stone barrier should be monitored daily for leakage and repaired as necessary.
- Remove all large debris located within the foundation to ensure proper sealing and reduce leakage through the barrier.
- In-stream barrier should extend upstream and downstream of the area to be disturbed so its placement does not interfere with in-stream construction.
- Sandy material should be used to fill sandbags. If permitted, material from the channel may be used to fill the bags.
- The length of stream dewatered should be determined by the amount of work that can be completed in one workday.

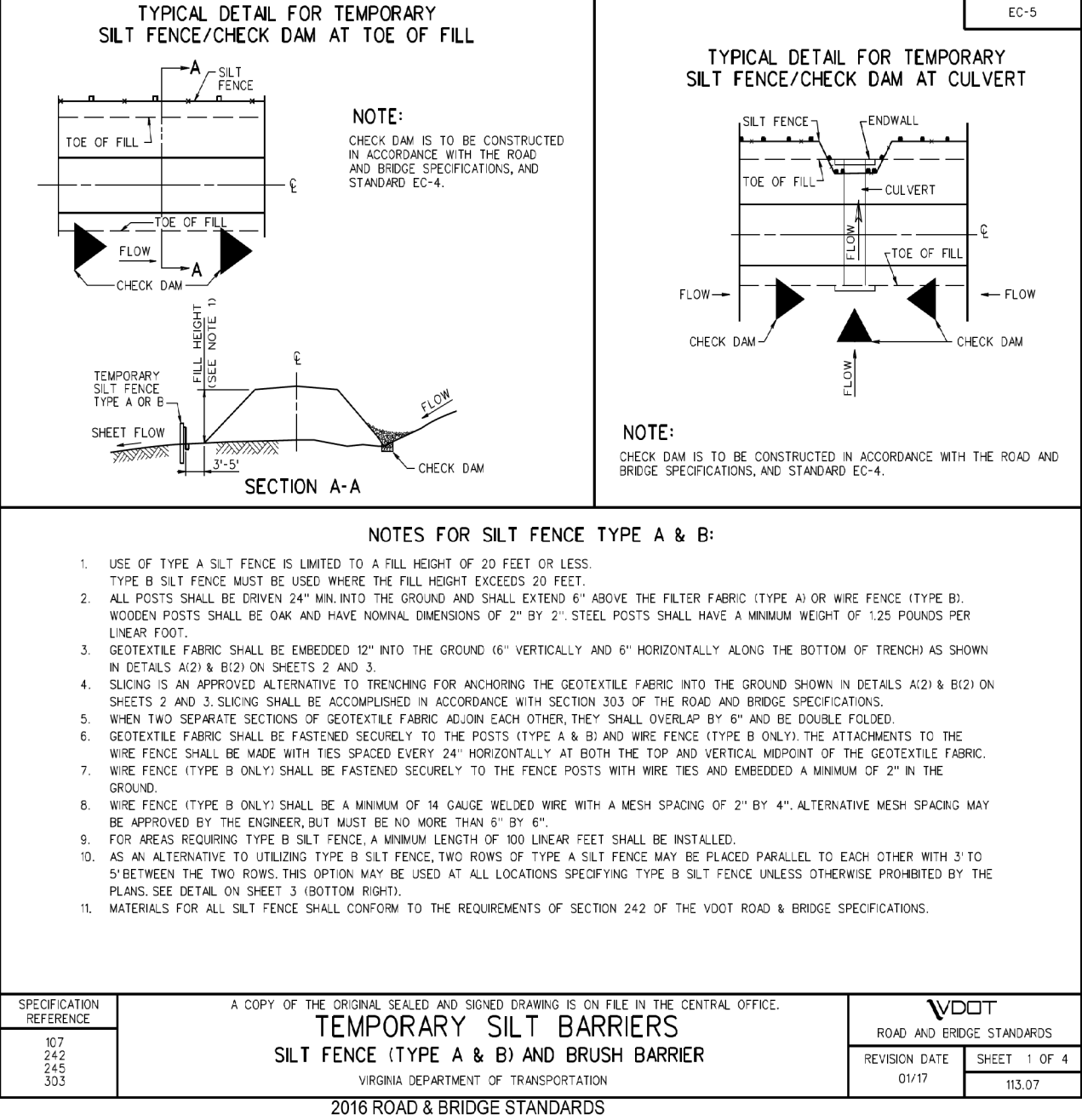
INSTALLATION GUIDELINES

- The diversion structure should be installed from upstream to downstream.
- Use de-watering pump and dewatering device to remove water left between the in-stream barriers after installation and as needed during construction.
- Complete in-stream construction activities and remove in-stream barriers.
- Restore/repair impacted stream areas.

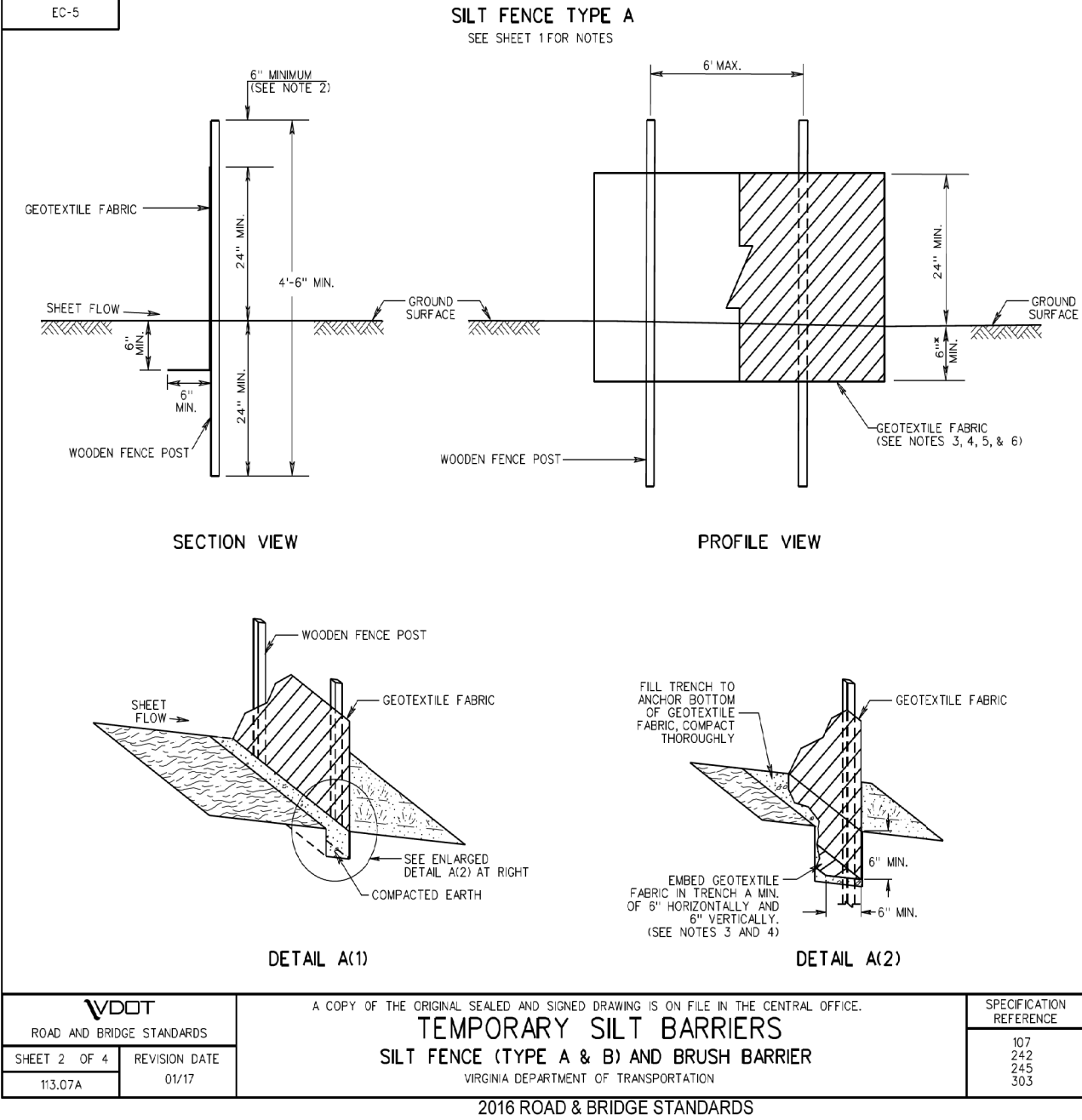
The Virginia Stream Restoration & Stabilization Best Management Practices Guide  
DETAIL 5.2: SANDBAG/STONE DIVERSION



2016 ROAD & BRIDGE STANDARDS



2016 ROAD & BRIDGE STANDARDS



EROSION & SEDIMENT CONTROL NOTES:

All erosion and sediment control items are to be in accordance with the Virginia Erosion and Sediment Control Handbook and the VDOT Road and Bridge Standards.

Install temporary silt fence along abutment A and along pier 3.

Install a sandbag/stone diversion to protect the stream during the removal of the existing foundation (See Sheet 6) along the channel banks. See this sheet for additional details. Stabilize the channel bank once the foundation is removed.

Debris in the channel is not to be removed by any machinery.



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PREFINAL PLANS

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TOWN OF VIENNA, VIRGINIA DEPARTMENT OF PUBLIC WORKS 127 CENTER STREET S. VIENNA, VIRGINIA 22180					
DEPARTMENT OF PUBLIC WORKS 703-255-6380					
FREEMAN STORE PEDESTRIAN BRIDGE ESC PLAN AND DETAILS					
PROJECT NO: ###					
PLAN NO. ***-**		DESIGNED: WRA DRAFTED: WRA CHECKED: WRA		SHEET 4 of 17	
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Demolition Plan and Pier reconstruction.dgn

STATE	FEDERAL AID		STATE	
	ROUTE	PROJECT	ROUTE	PROJECT
VA.	—	—	N/A	UPC 111404

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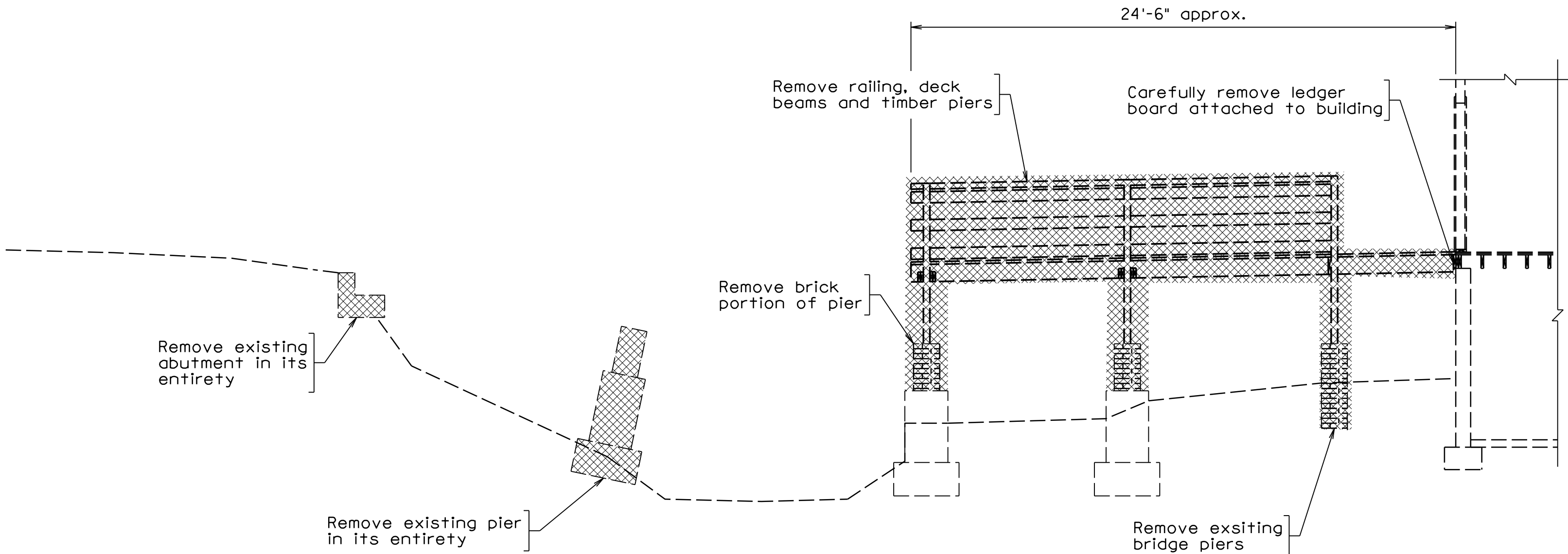
Contractor shall exercise extreme care in performing its work adjacent to and on the grounds of the historic Freeman Store.

For removal of items in the stream, contractor shall be limited to hand methods and limit disturbance of the stream bed. Only manmade materials of brick, concrete, rebar and other trash may be removed.

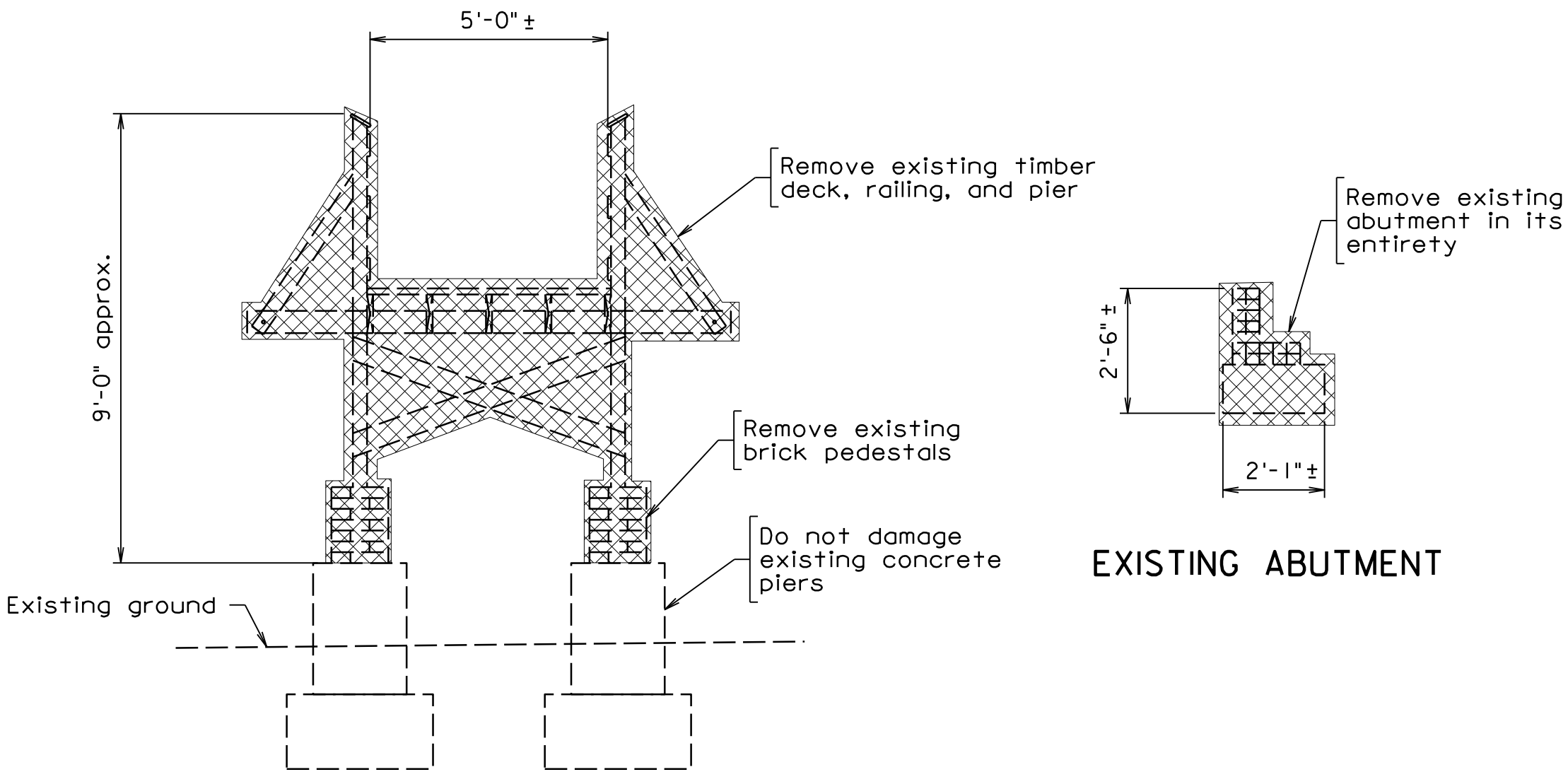
HVAC equipment to remain in operation throughout the duration of demolition and reconstruction. Contractor shall be aware of this constraint and not damage the equipment or utility lines servicing it.

The existing sump pump discharge line shall remain in operation throughout the duration of demolition and reconstruction. Contractor shall install a bypass line that drains safely to the stream before demolition of the existing timber superstructure.

Carefully remove the existing ledger board that attaches to the Freeman Store building. Inspect the siding boards and door brick molding exposed by removing the deck for any damage or rot and replace in kind. See sheet 15 for details of the replacement ledger board.



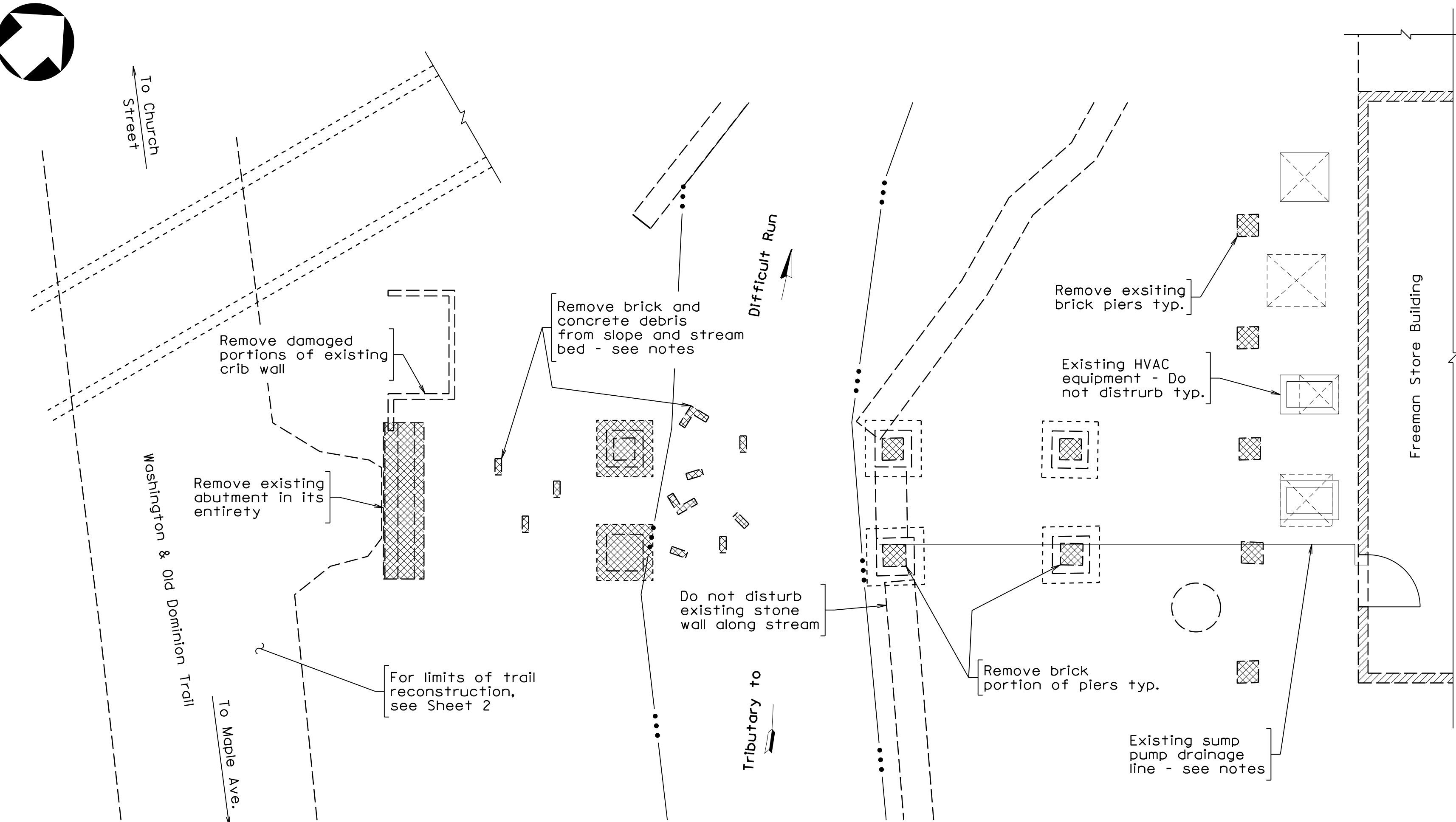
EXISTING ELEVATION



EXISTING PIER

SECTION AT EXISTING PIER AND ABUTMENT

Scale: 3/8"=1'-0"



DEMOLITION PLAN SHOWING EXISTING SUBSTRUCTURE

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



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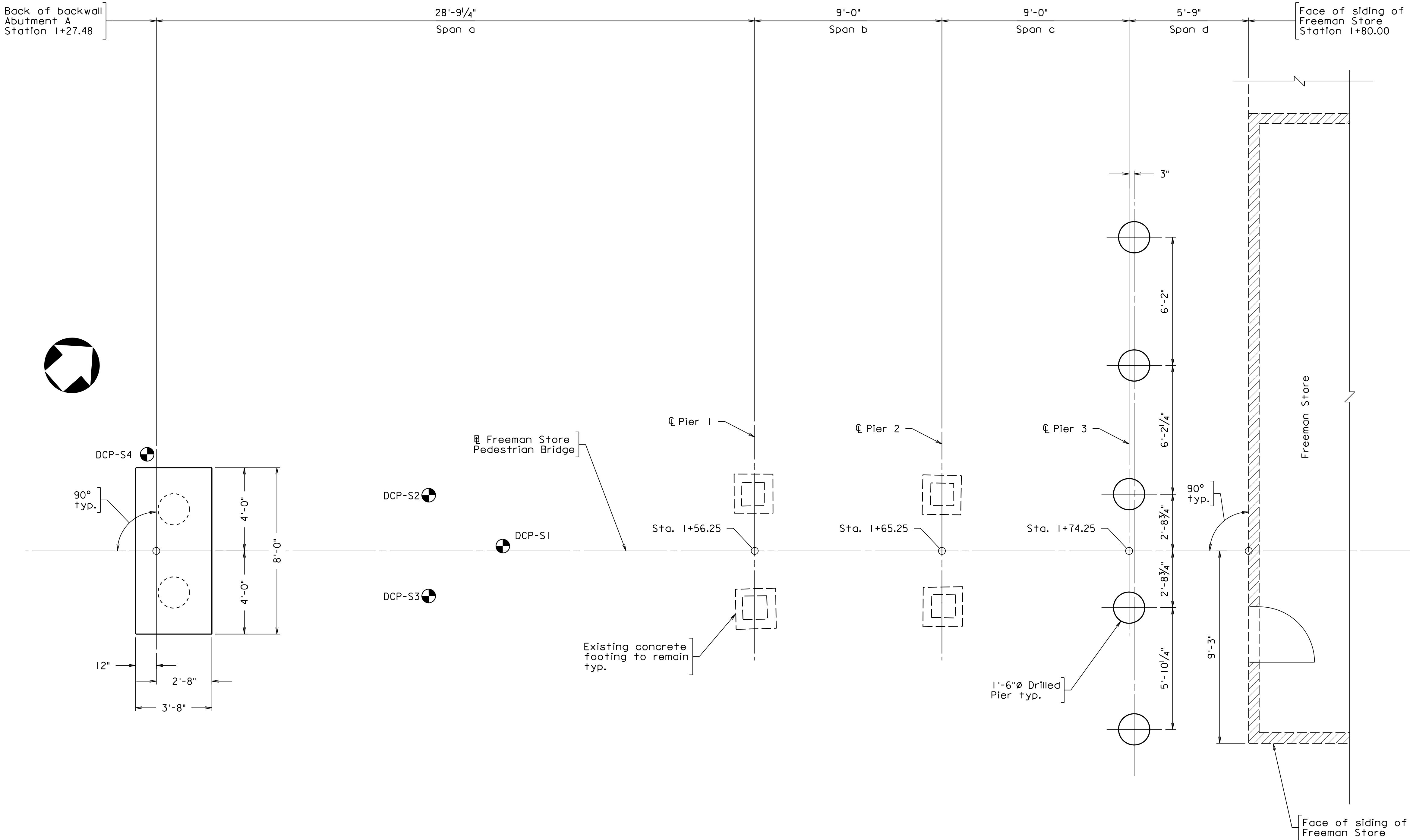
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	APPROVED BY THE DEPARTMENT OF PUBLIC WORKS											

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Substructure Layout.dgn

STATE	FEDERAL AID		STATE	
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VA.	—	—	N/A	UPC 111404



Notes:

This substructure layout is to be used only for the purpose of locating the existing and proposed substructure locations

For abutment details, see sheets 7 and 8

For Pier 3 foundation details, see sheet 11

For Geotechnical memorandum, see project specifications.

Legend:

Indicates approx. location of Dynamic Cone Penetration (DCP) probe.

Horizontal and Vertical Control:

Freeman Store Pedestrian Bridge Definition:

Point BEGIN: N 7014311.5070 E 11834286.5483  
Station 1+00  
Point END: N 7014386.5120 E 11834352.6865  
Station 2+00  
Coarse from BEGIN to END  
N 41 -24'-19.08" E Dist. 100.00

Point on Target Station 1+74.25  
N 7014367.1982 E 11834335.6559

Elevations shown are referenced to the North American Vertical Datum (NAVD) of 1988.  
Benchmark defined on sheet 2.

Horizontal bearings and coordinates shown are referenced to the Virginia State Grid North Zone NAD 83 - US Survey Foot.

SUBSTRUCTURE LAYOUT

SPREAD FOOTING DATA TABLE				
Substructure Unit	SERVICE		STRENGTH	
	Nominal Bearing Resistance (tsf)	Tolerable Settlement (inches)	Nominal Bearing Resistance (tsf)	Factored Bearing Resistance (tsf)
Abutment A	1.5	0.5	**	**
Existing Piers	2.0	0.5	**	**
Pier 3	2.0	0.5	**	**

The Service Limit State controls the footing design.

Scale: 3/8" = 1'-0"

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PREFINAL PLANS

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FREEMAN STORE PEDESTRIAN BRIDGE  
SUBSTRUCTURE LAYOUT

PROJECT NO: ###

PLAN NO. DESIGNED: WRA  
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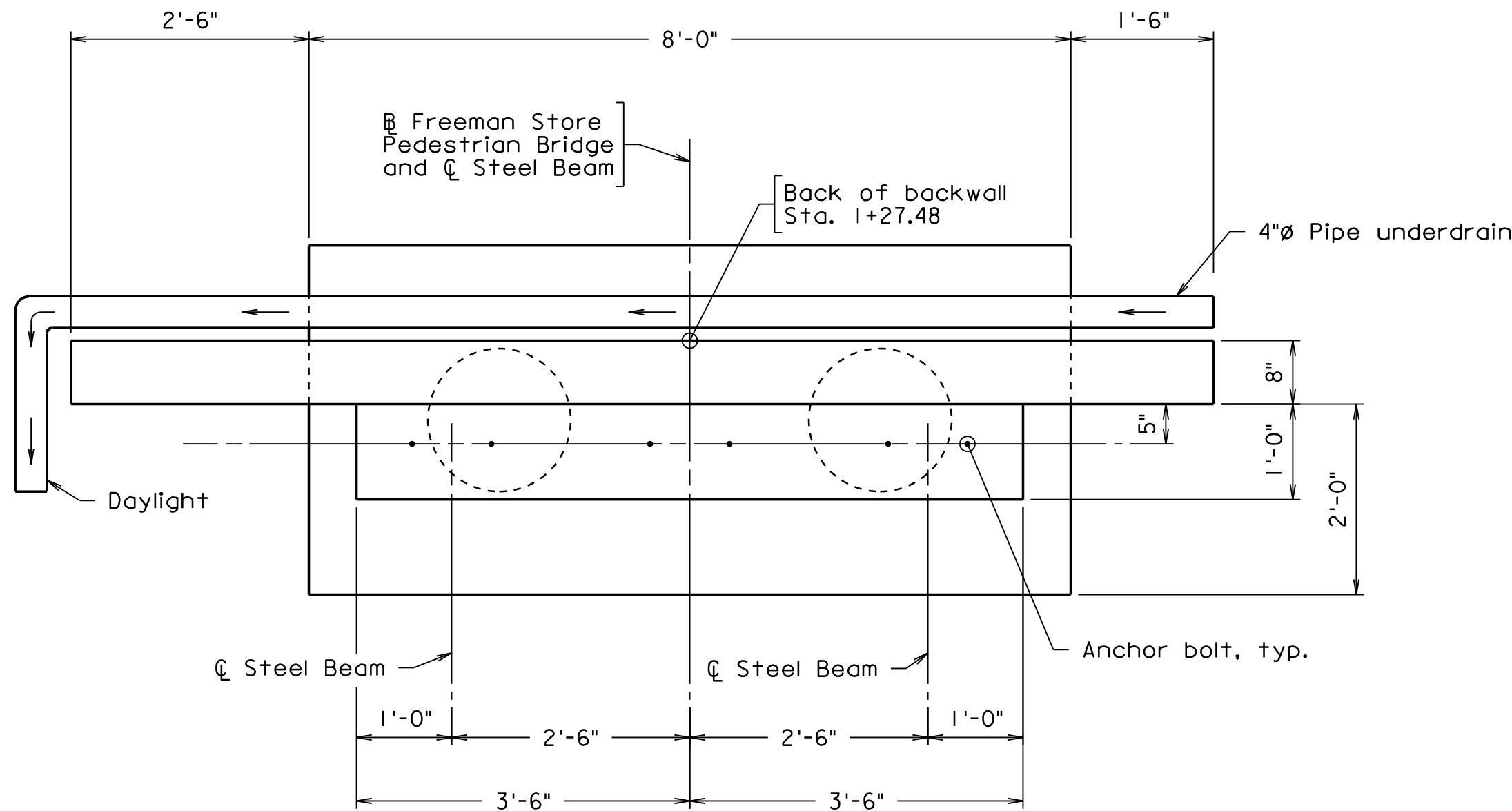
SHEET 6 of 17

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RICHMOND, VA  
STRUCTURAL ENGINEER

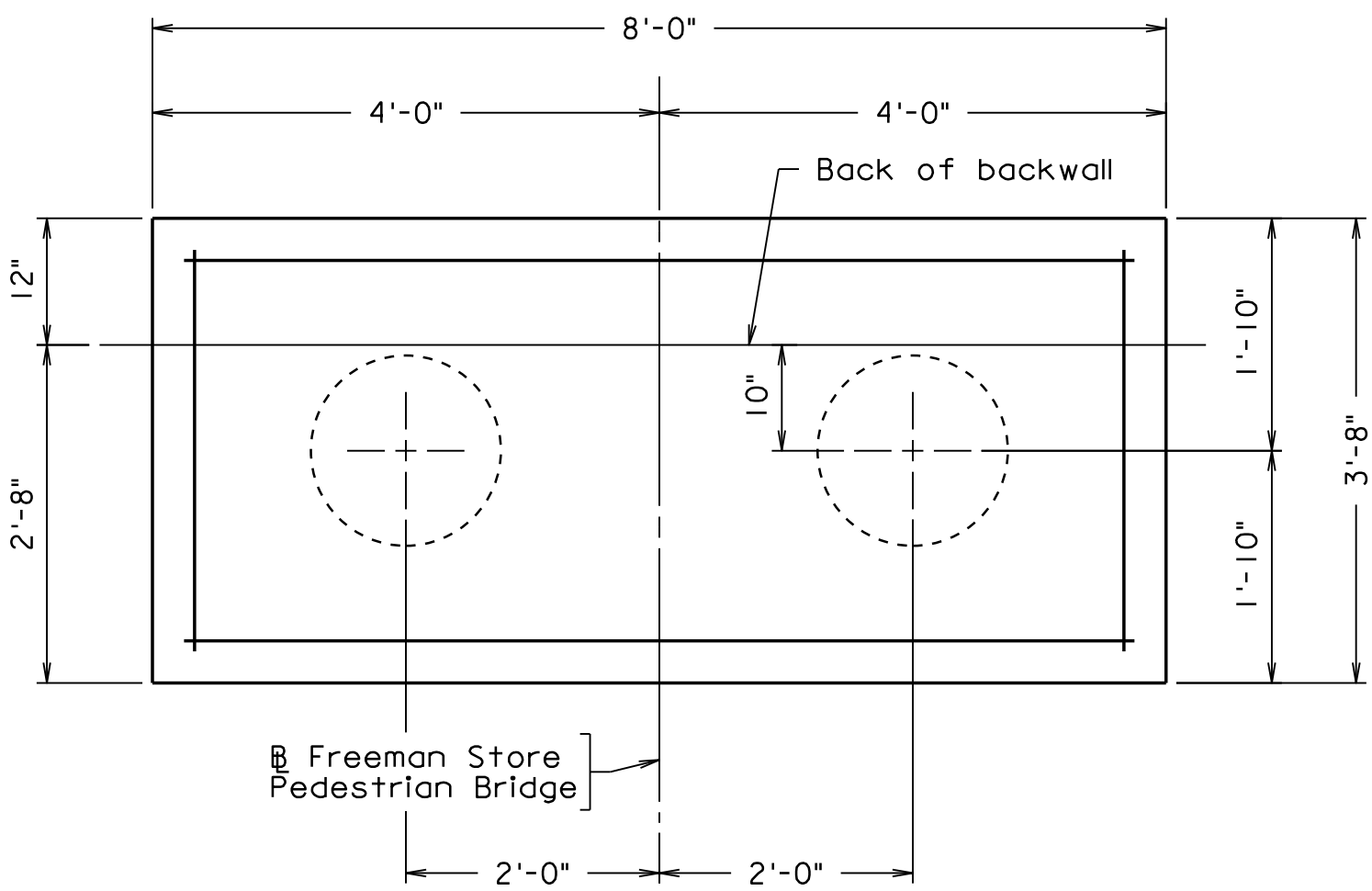
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Abutment A Plan, Elev + Sections.dgn

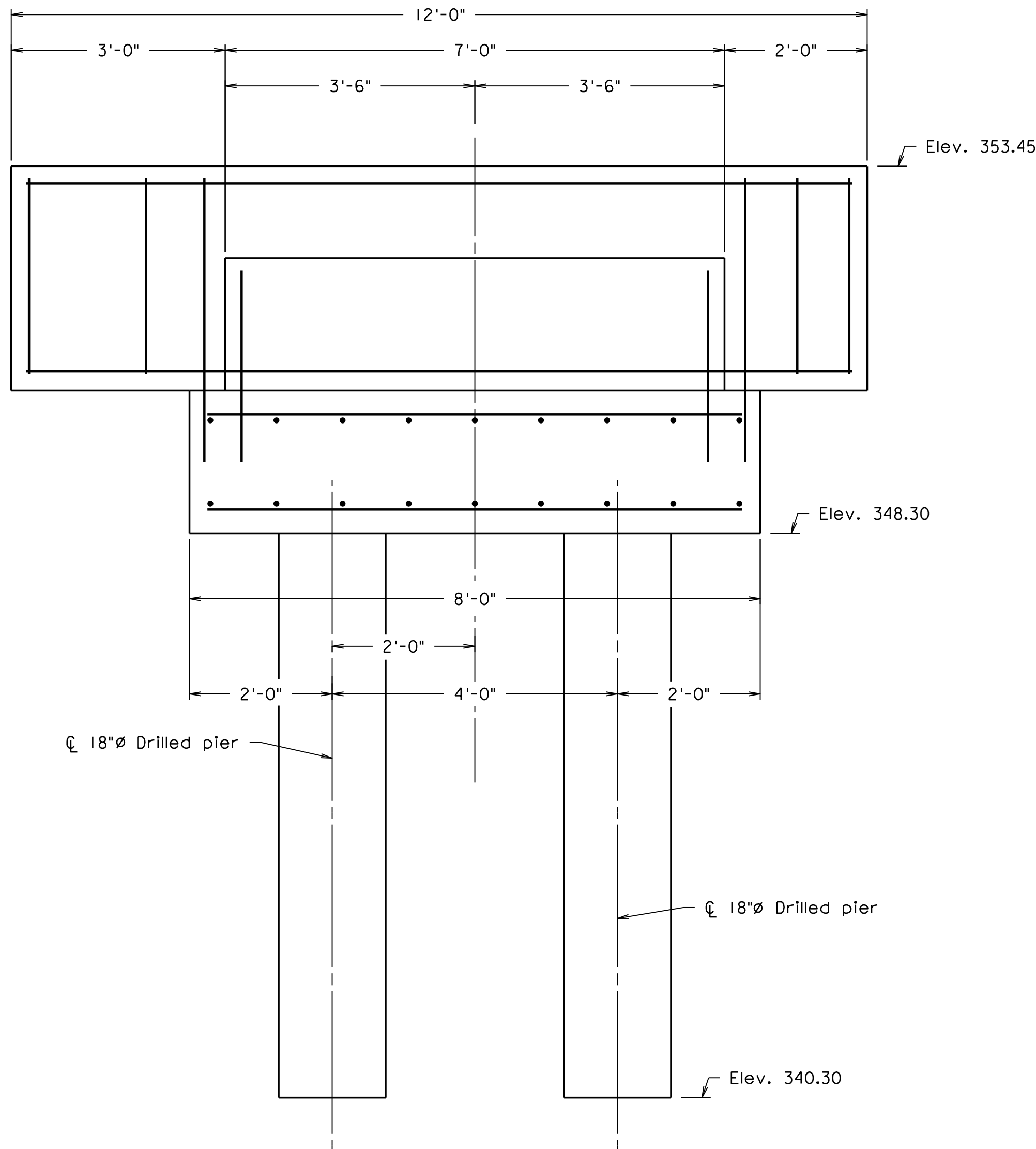
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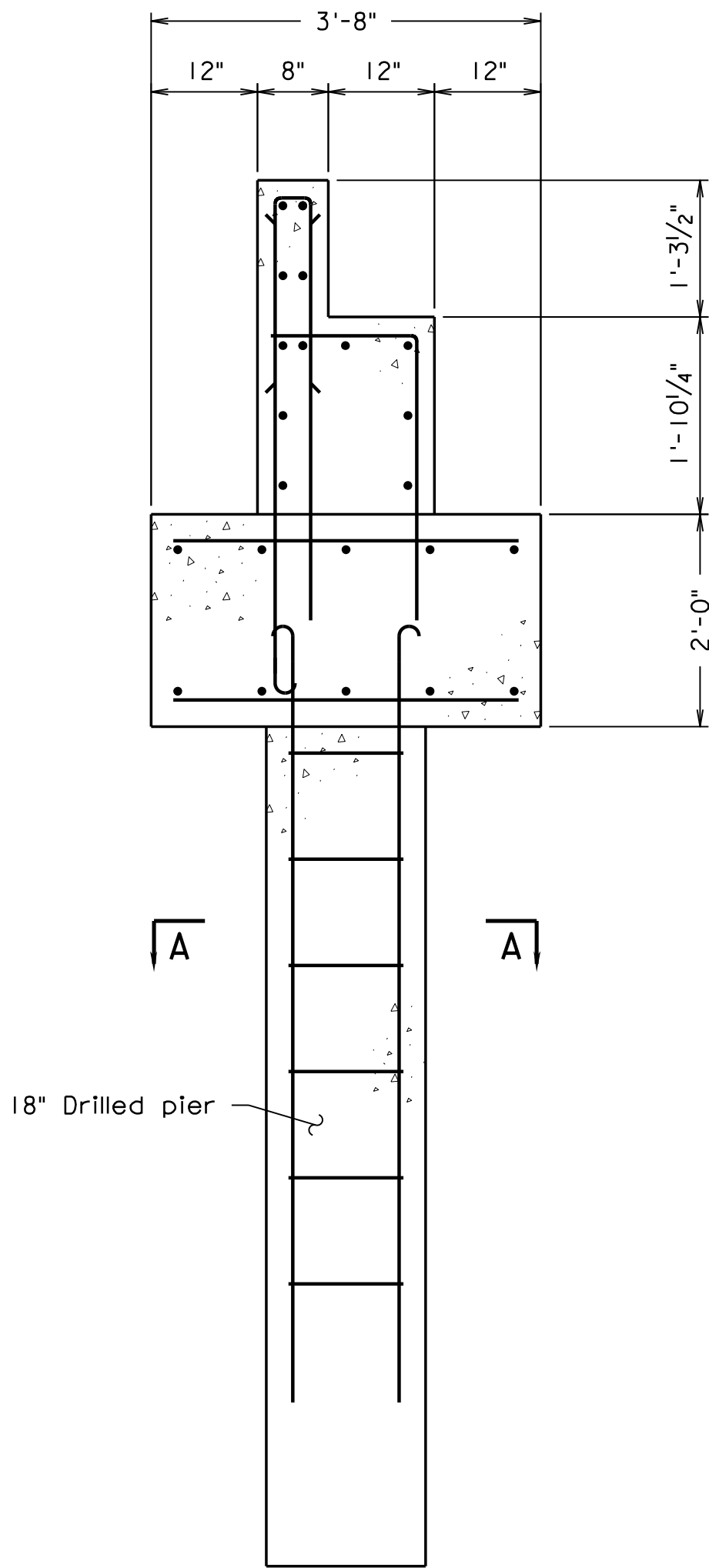
PLAN



FOOTING PLAN

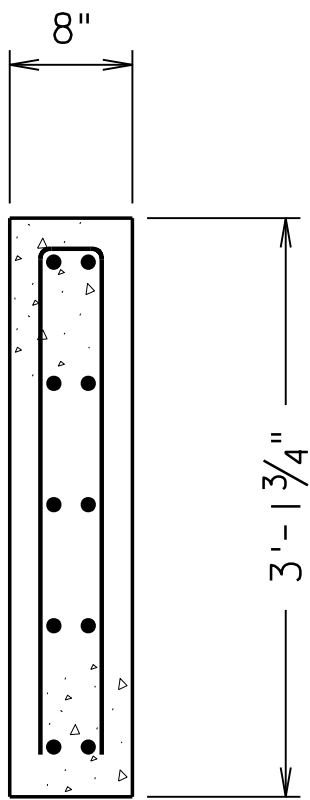


ELEVATION

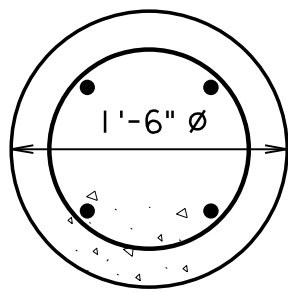


TYPICAL SECTION

Scale: 3/4" = 1'-0" Unless otherwise noted.



WINGWALL SECTION



SECTION A-A



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PREFINAL PLANS

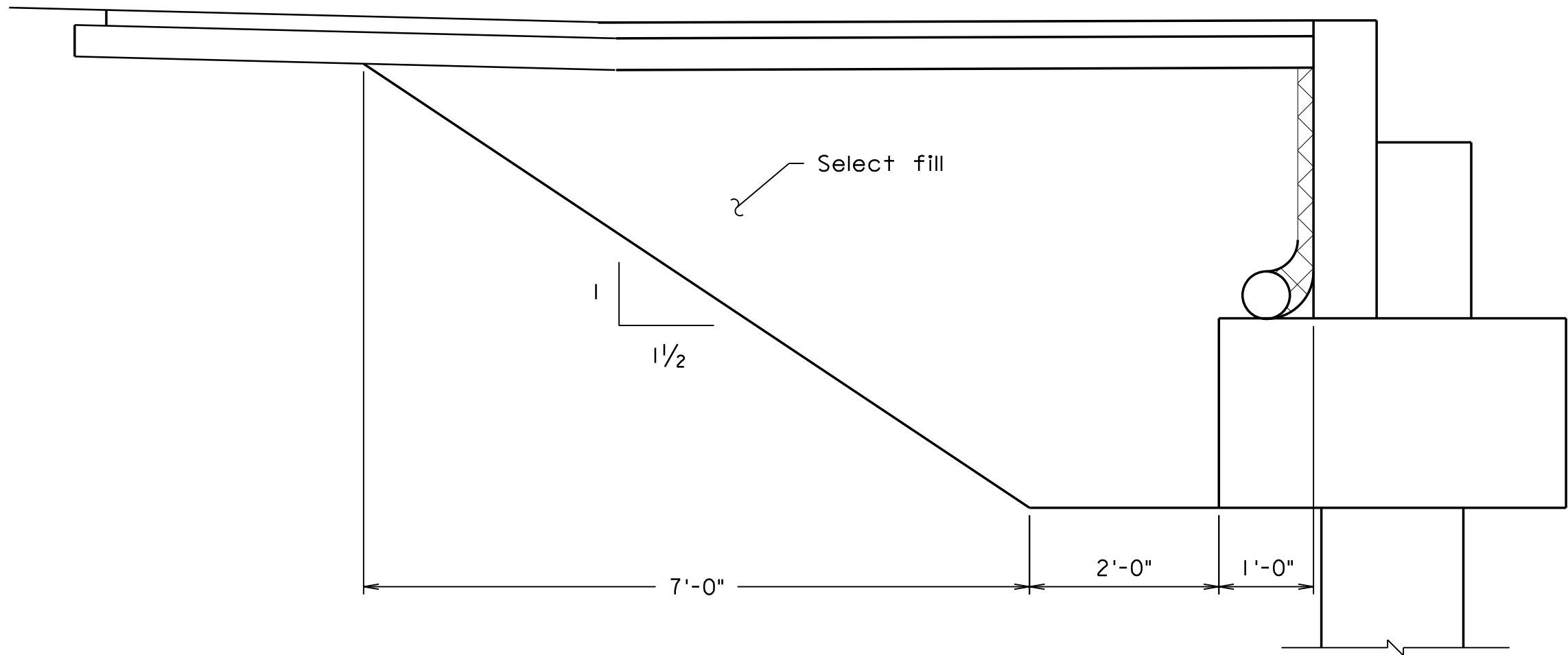
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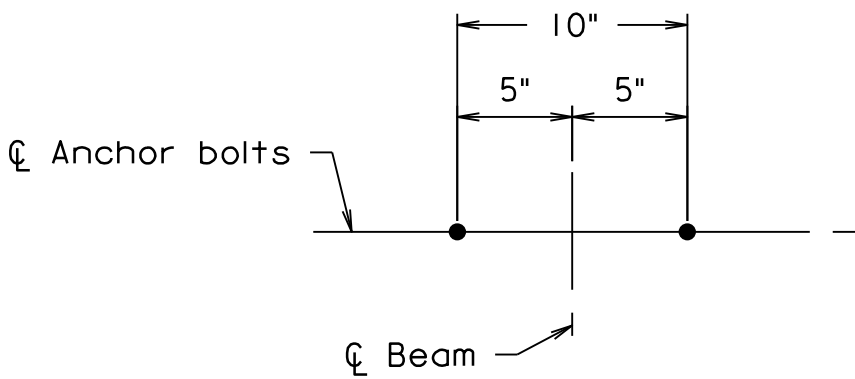
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Abutment A Details.dgn

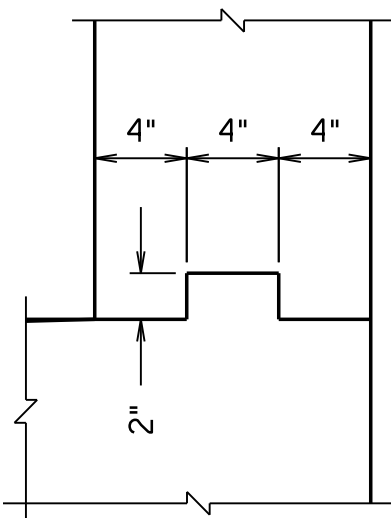
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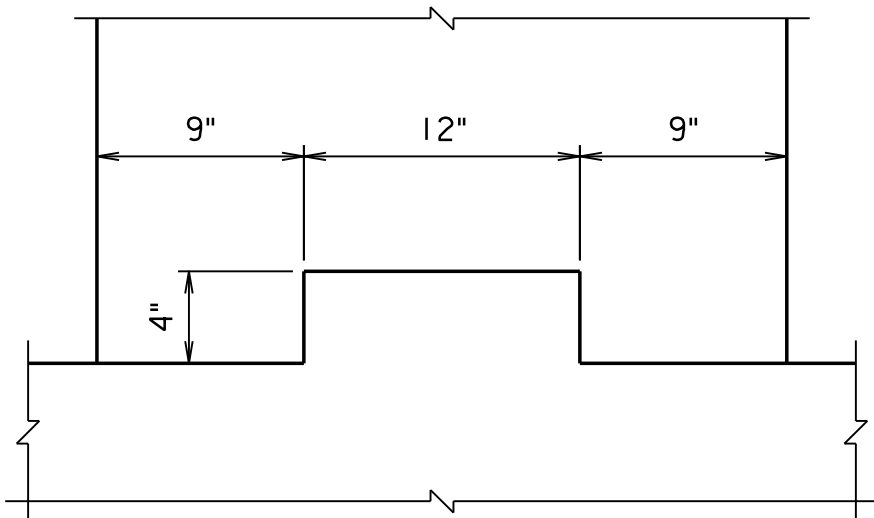
SECTION THROUGH ABUTMENT - FILL SECTION



ANCHOR BOLT DETAILS



BACKWALL AND WINGWALL  
KEY DETAIL  
Scale: 1 1/2" = 1'-0"



STEM KEY DETAIL  
Scale: 1 1/2" = 1'-0"

Scale: 3/4" = 1'-0" Unless otherwise noted.



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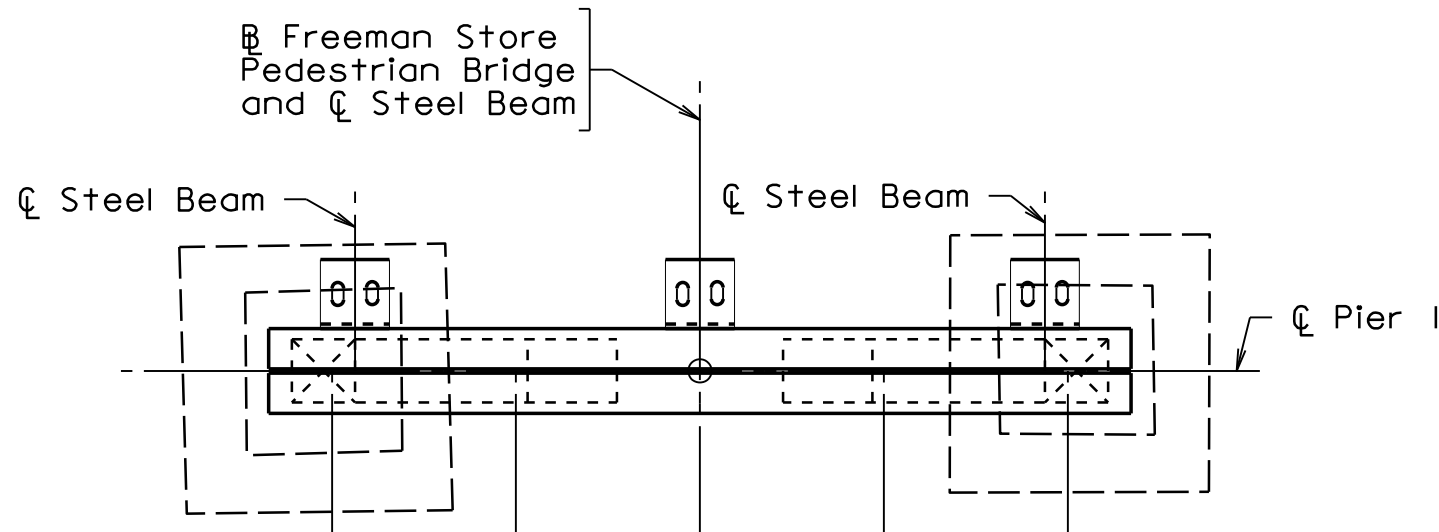


Pier 1 details.dgn

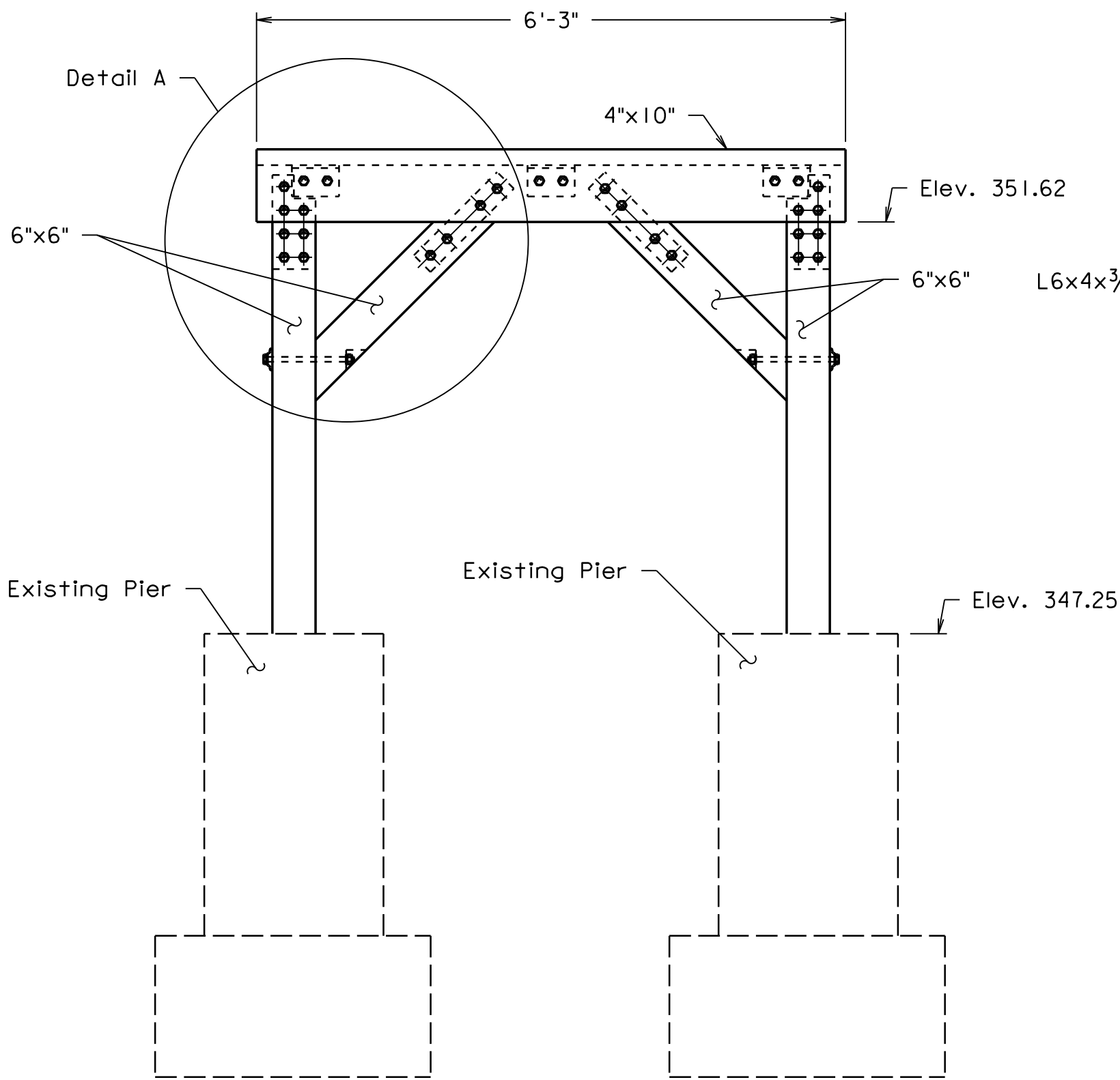
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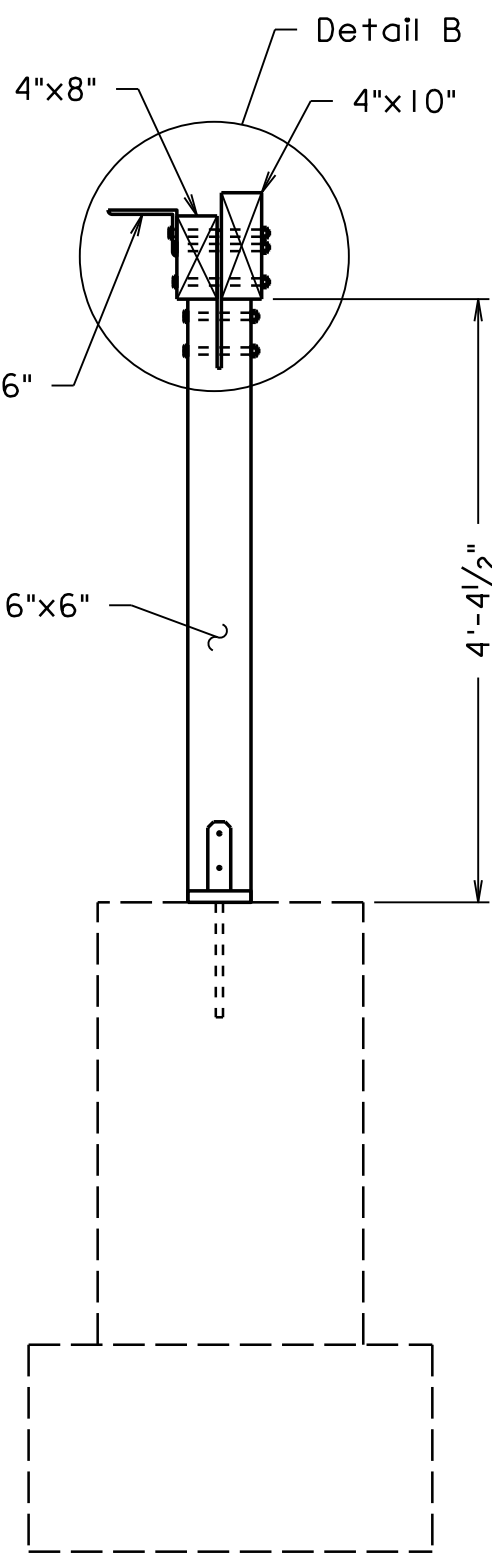
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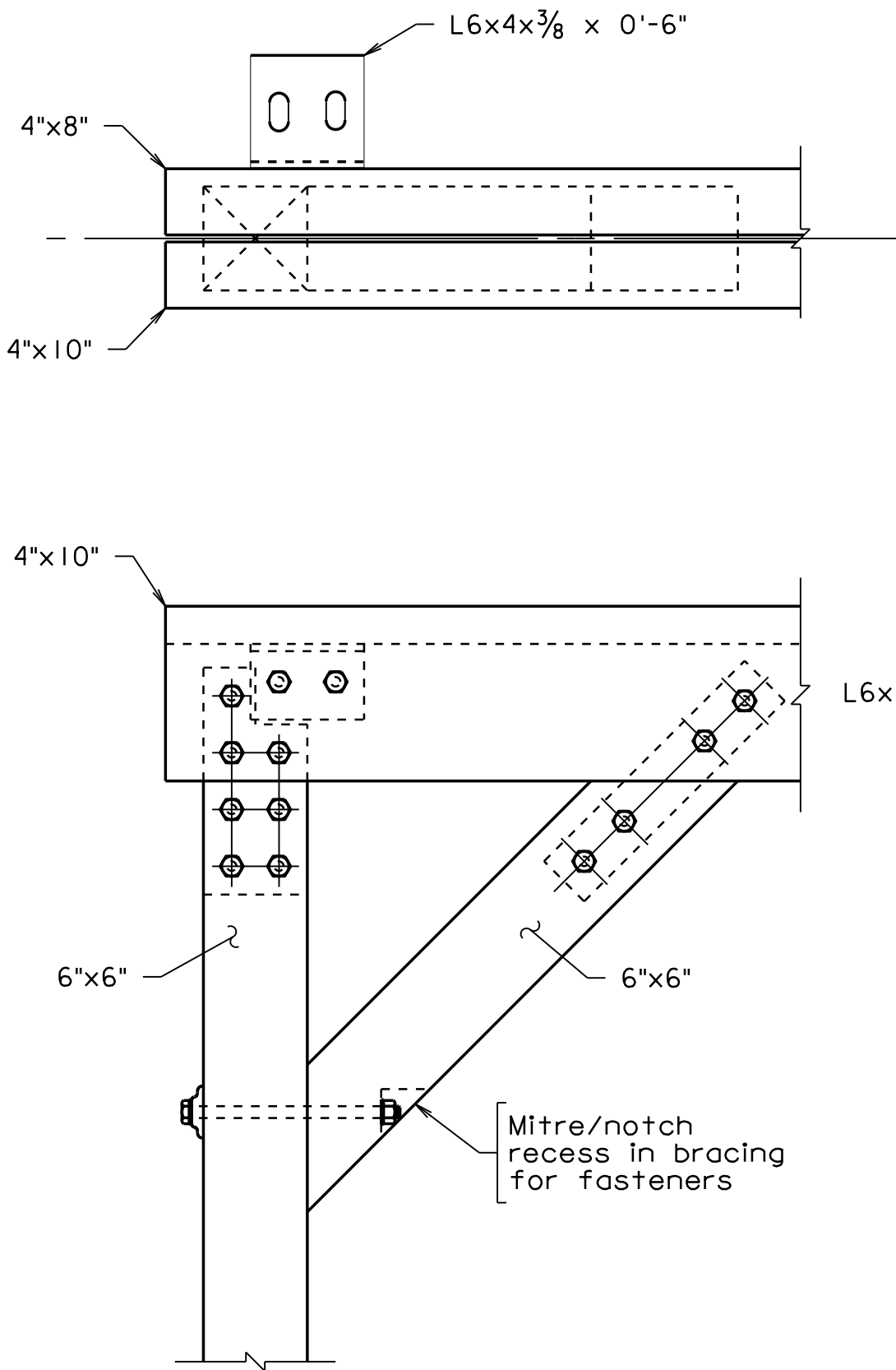
PLAN



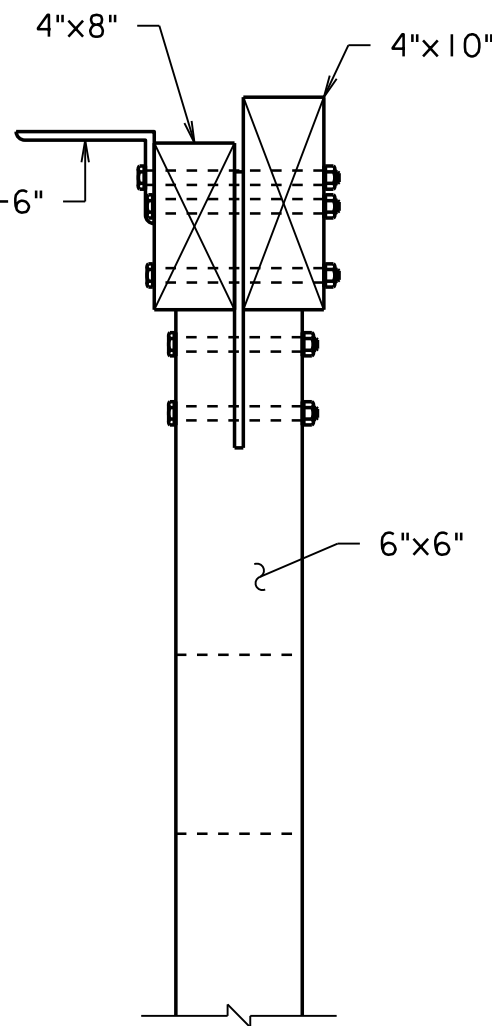
ELEVATION



SECTION



DETAIL A



DETAIL B



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PREFINAL PLANS

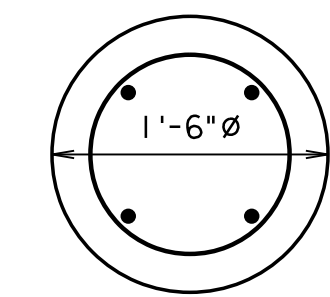
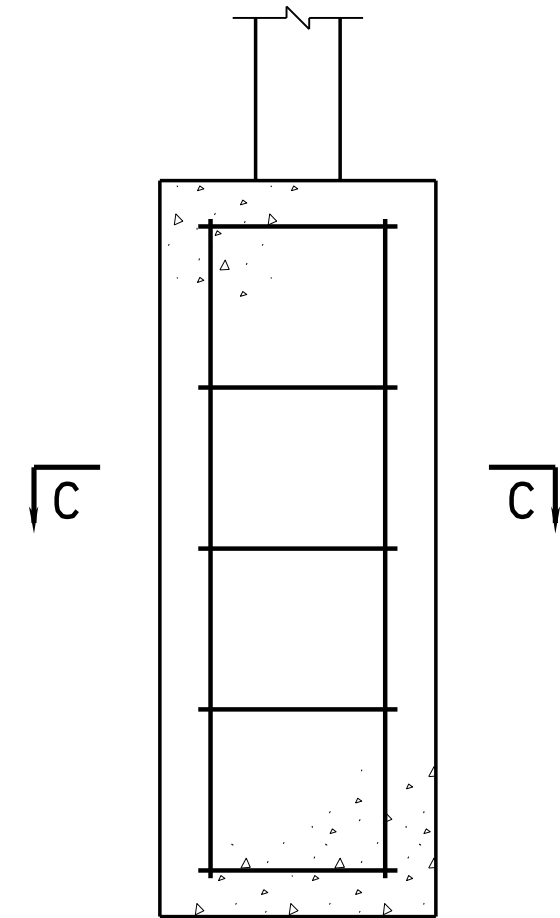
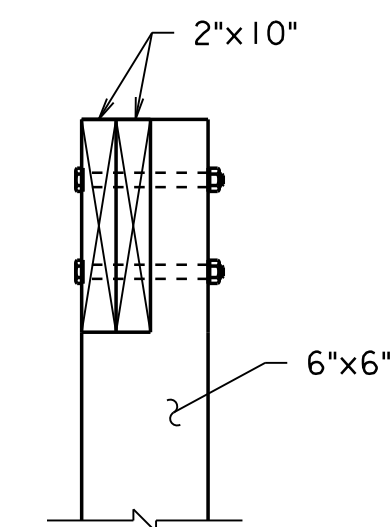
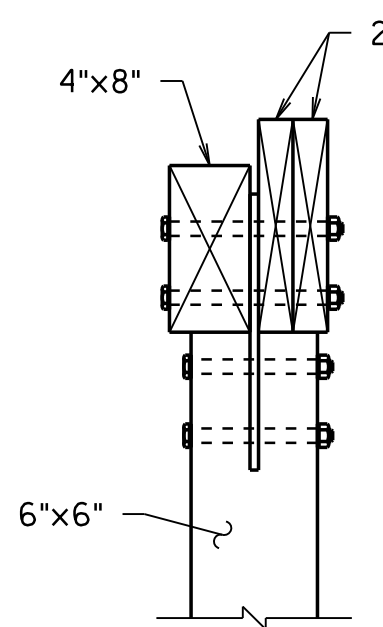
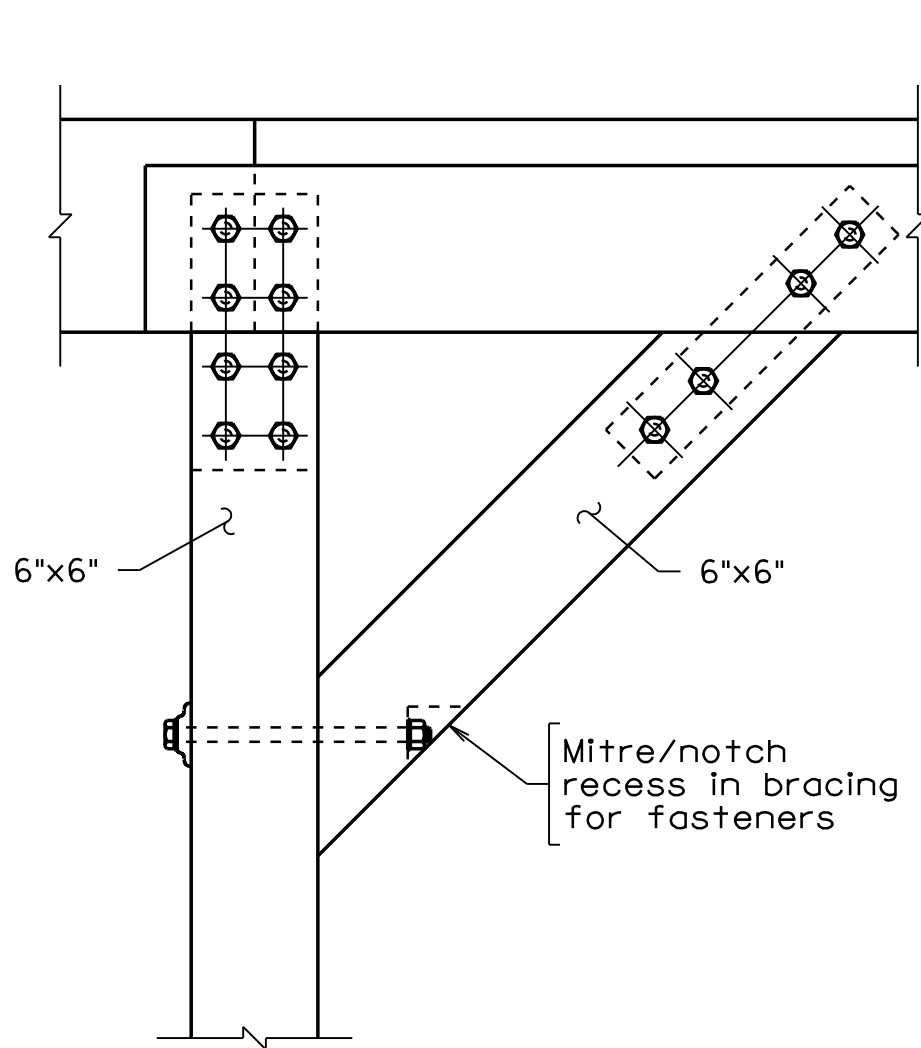
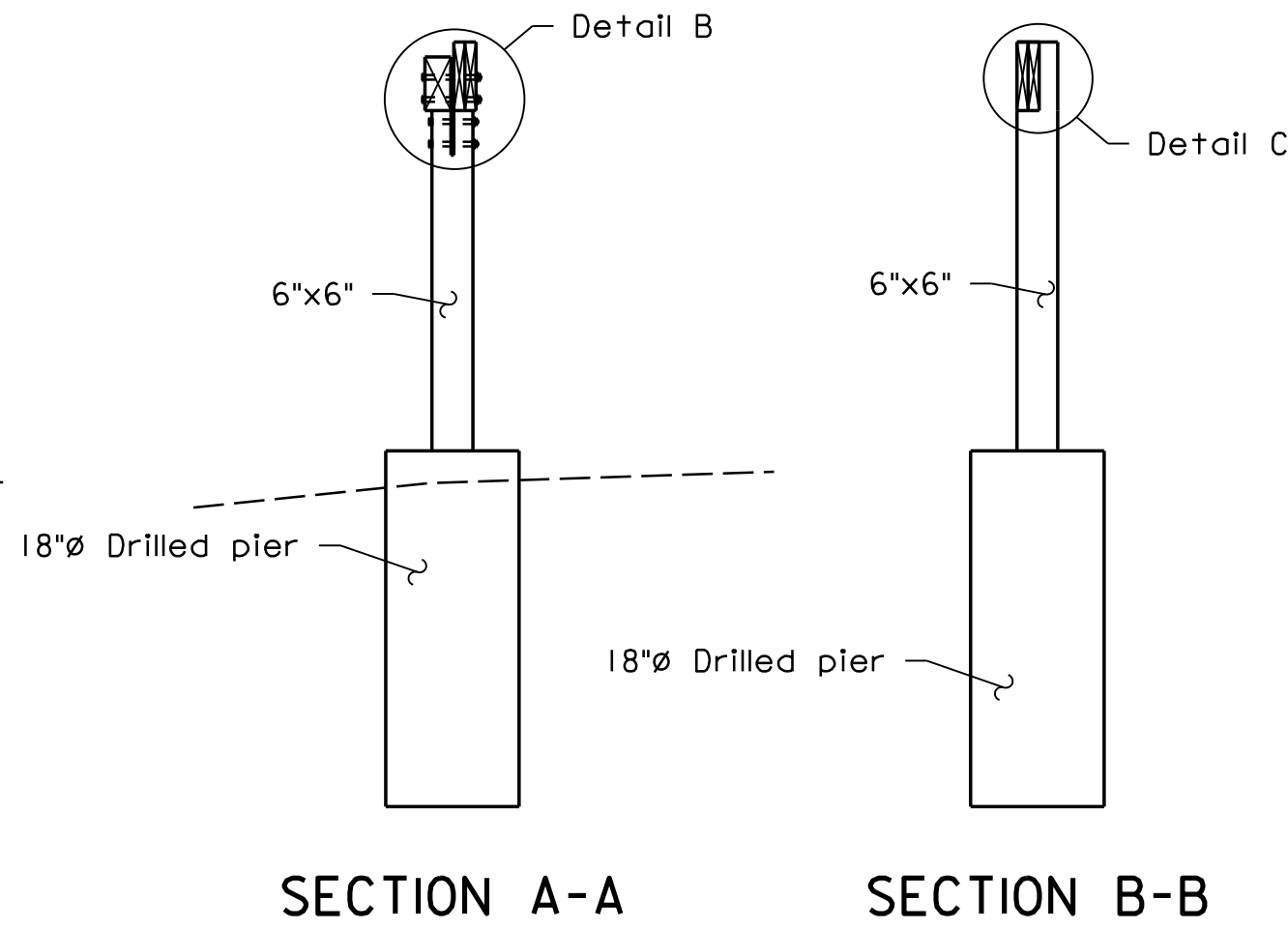
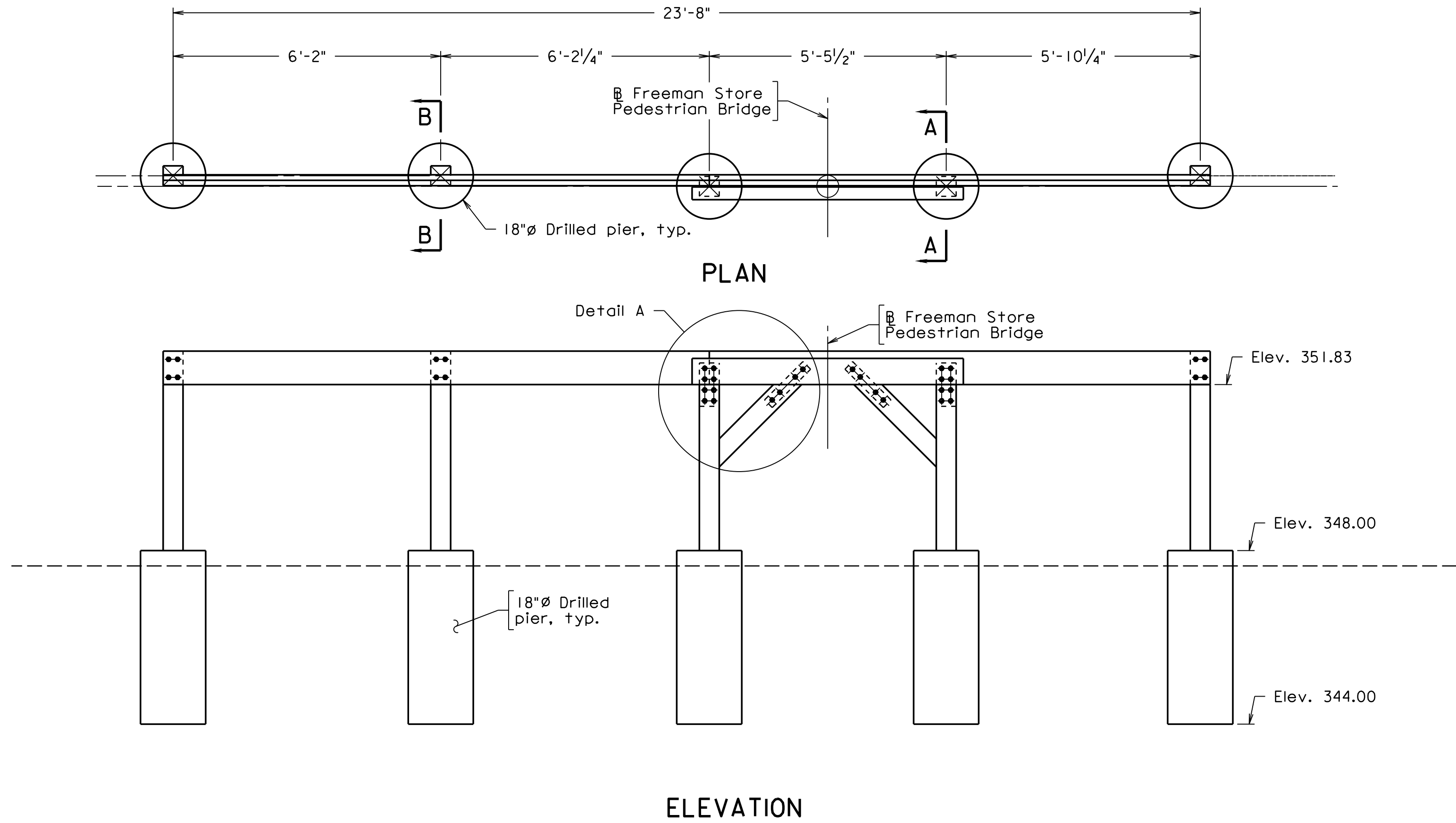
EMERGENCY POLICE - FIRE - RESCUE 911					DEC. 2018			
TOWN OF VIENNA, VIRGINIA DEPARTMENT OF PUBLIC WORKS 127 CENTER STREET S. VIENNA, VIRGINIA 22180								
R					DEPARTMENT OF PUBLIC WORKS 703-255-6380			
E								
V					FREEMAN STORE PEDESTRIAN BRIDGE PIER 1 DETAILS			
I								
S								
I								
O					PROJECT NO: ###			
N								
S	△#	DESCRIPTION	BY	APPROVED	DATE	PLAN NO.	DESIGNED: WRA DRAFTED: WRA CHECKED: WRA	SHEET 9 of 17
APPROVED BY THE DEPARTMENT OF PUBLIC WORKS								

Scale: 3/4" = 1'-0" Unless otherwise noted.

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.



STATE	FEDERAL AID		STATE	
	ROUTE	PROJECT	ROUTE	PROJECT
VA.	—	—	N/A	UPC 111404



REINFORCING STEEL SCHEDULE						
Type I				Type 53		
Mark	Size	No.	Length	Pin $\phi$	Location	
-	-	-	3'-6"	-	Pier 3 Footing	
-	-	-	-	-	Pier 3 Footing	

Dimensions in bending diagram are out-to-out of bars.



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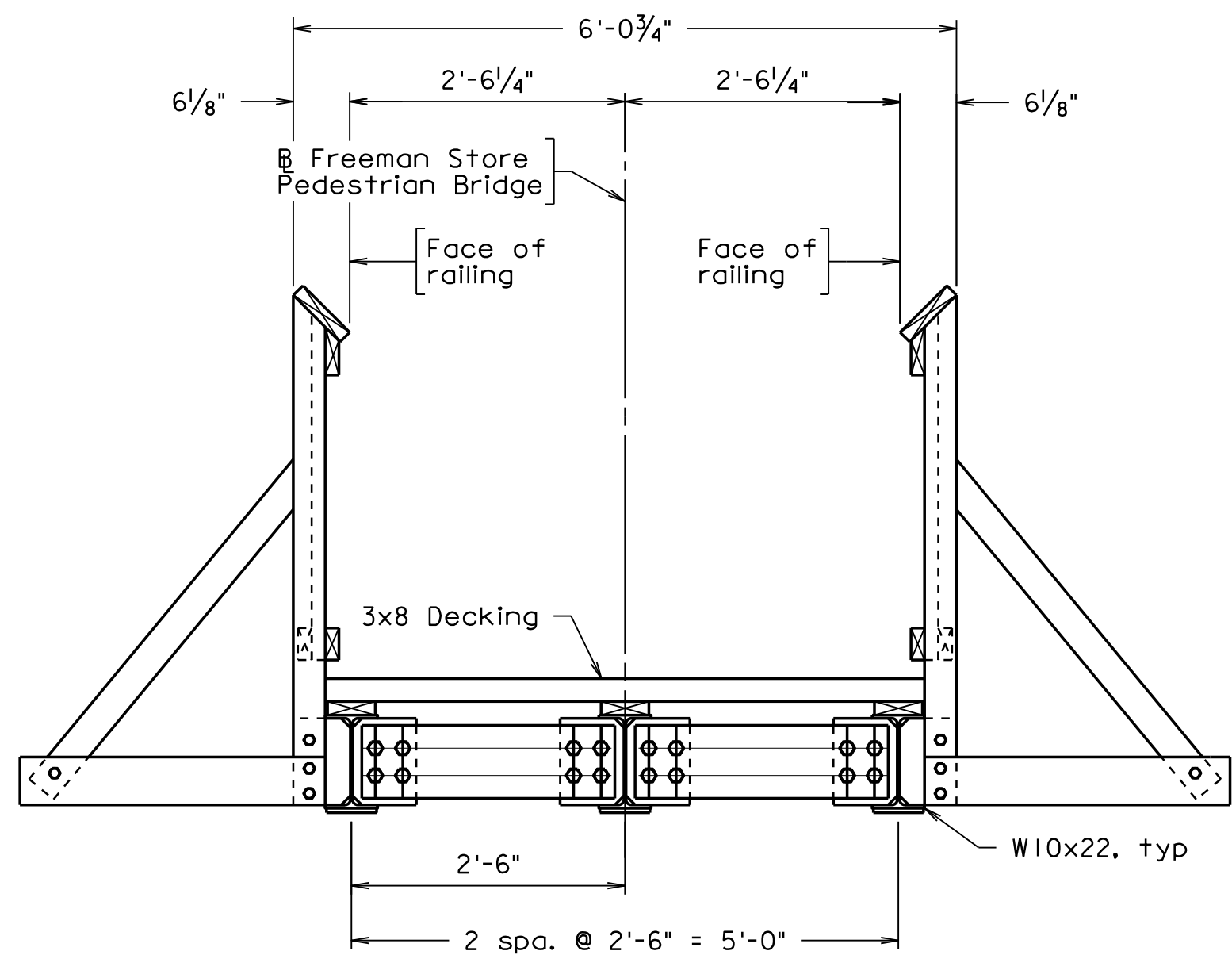
PREFINAL PLANS

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TOWN OF VIENNA, VIRGINIA							
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127 CENTER STREET S. VIENNA, VIRGINIA 22180							
R E V i S i O N S					DEPARTMENT OF PUBLIC WORKS		
					703-255-6380		
					FREEMAN STORE PEDESTRIAN BRIDGE		
					PIER 3 DETAILS		
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					*** - **	DRAFTED: WRA	11 of 17
						CHECKED: WRA	
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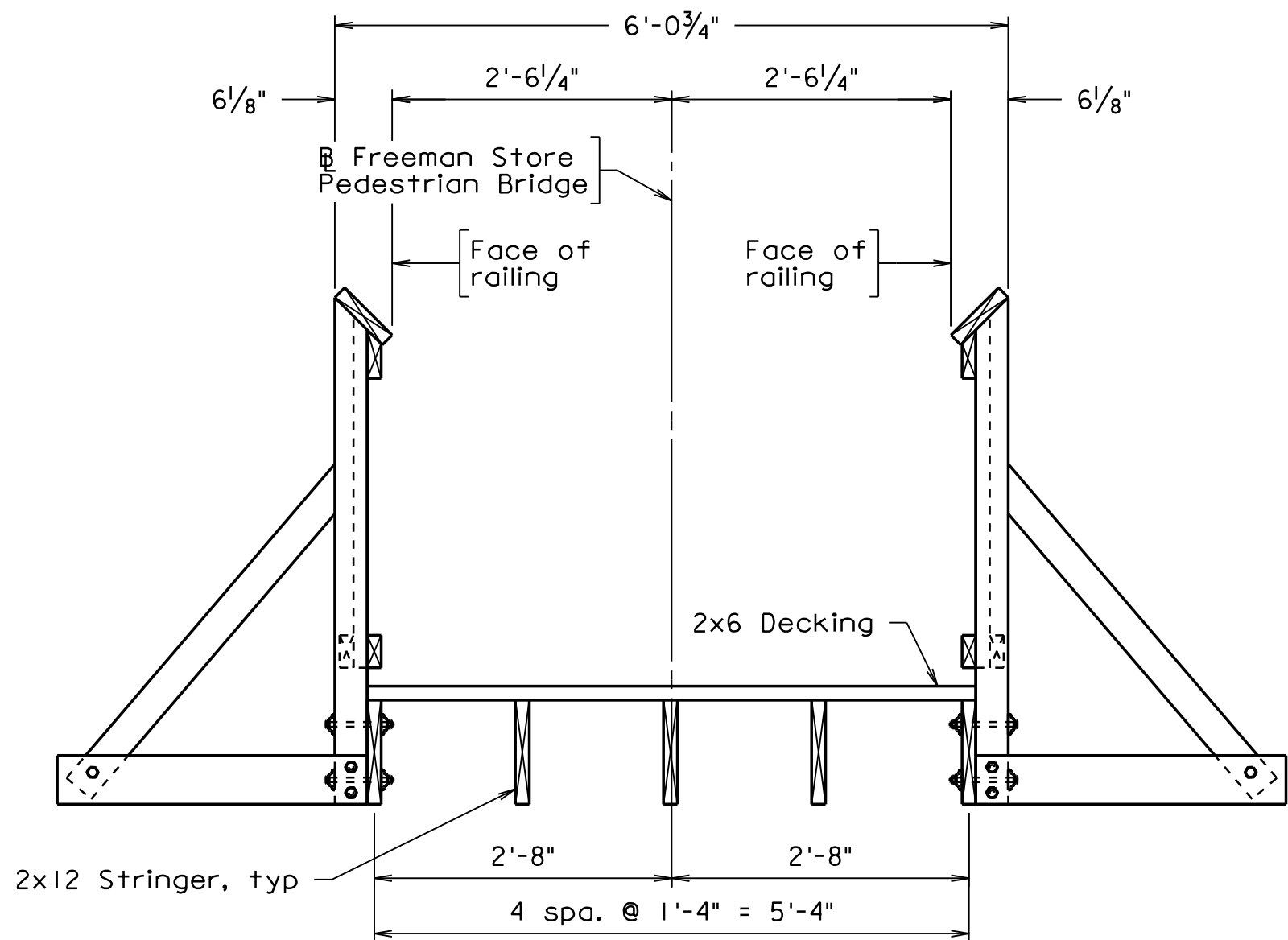
Scale: 3/4" = 1'-0" Unless otherwise noted.

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

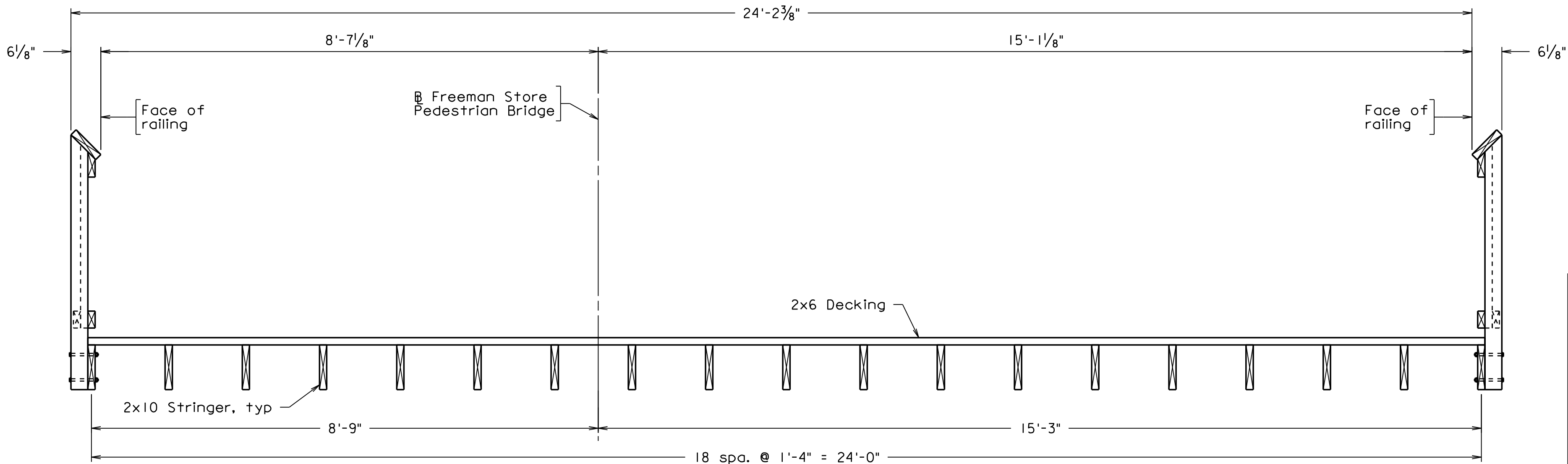
Transverse Sections.dgn



TRANSVERSE SECTION - SPAN A



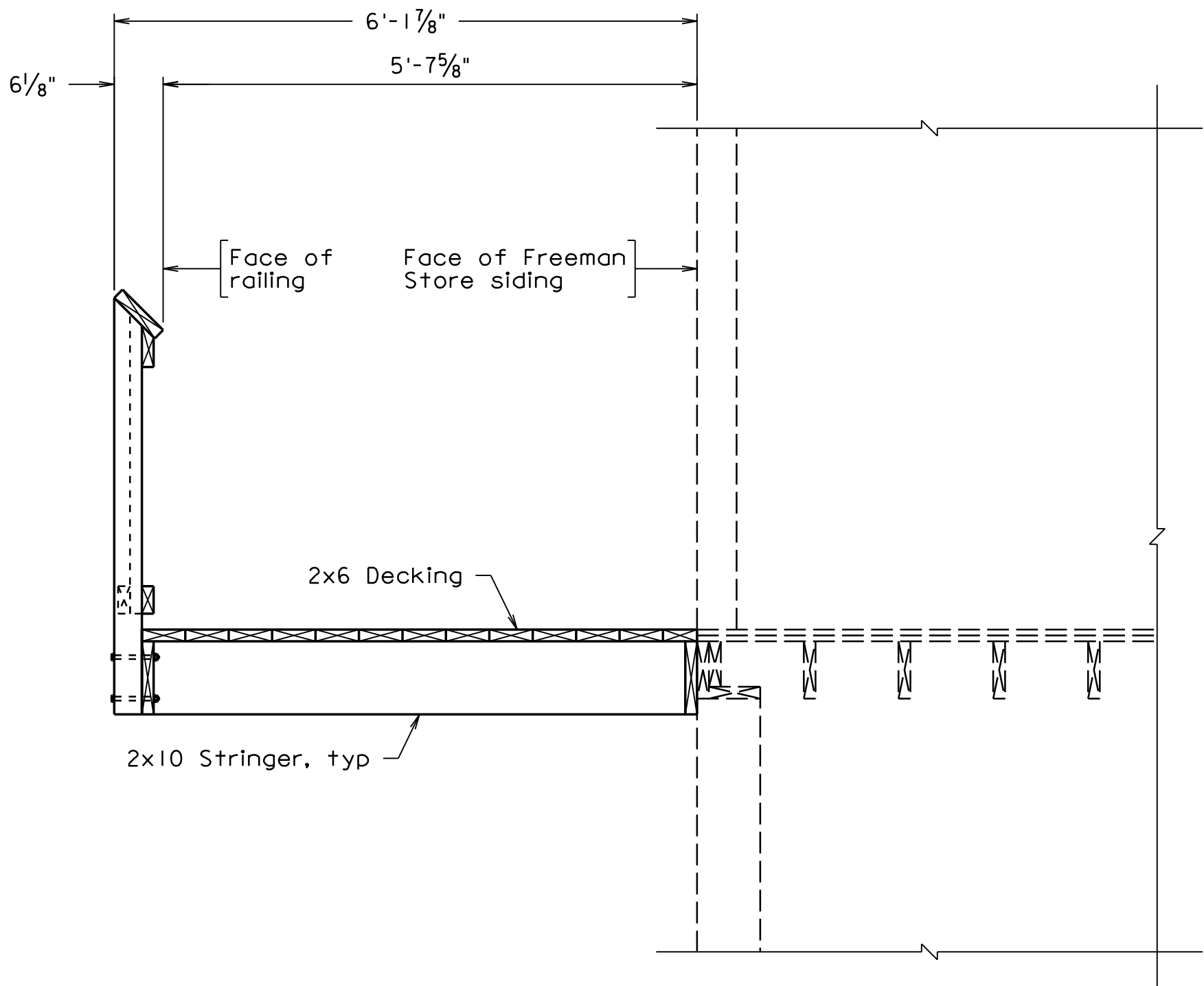
TRANSVERSE SECTION - SPANS B & C



TRANSVERSE SECTION - SPAN D

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

STATE	FEDERAL AID		STATE	
	ROUTE	PROJECT	ROUTE	PROJECT
VA.	—	—	N/A	UPC 111404



LONGITUDINAL SECTION - SPAN D



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PREFINAL PLANS

EMERGENCY POLICE - FIRE - RESCUE 911					DEC. 2018		
TOWN OF VIENNA, VIRGINIA DEPARTMENT OF PUBLIC WORKS 127 CENTER STREET S. VIENNA, VIRGINIA 22180							
R					DEPARTMENT OF PUBLIC WORKS 703-255-6380		
E							
V					FREEMAN STORE PEDESTRIAN BRIDGE TRANSVERSE SECTIONS		
I							
S					PROJECT NO: ###		
I							
O					PLAN NO. DESIGNED: WRA ***-** DRAFTED: WRA CHECKED: WRA		
N							
S	△/△	DESCRIPTION	BY	APPROVED	DATE	SHEET 12 of 17	
APPROVED BY THE DEPARTMENT OF PUBLIC WORKS							

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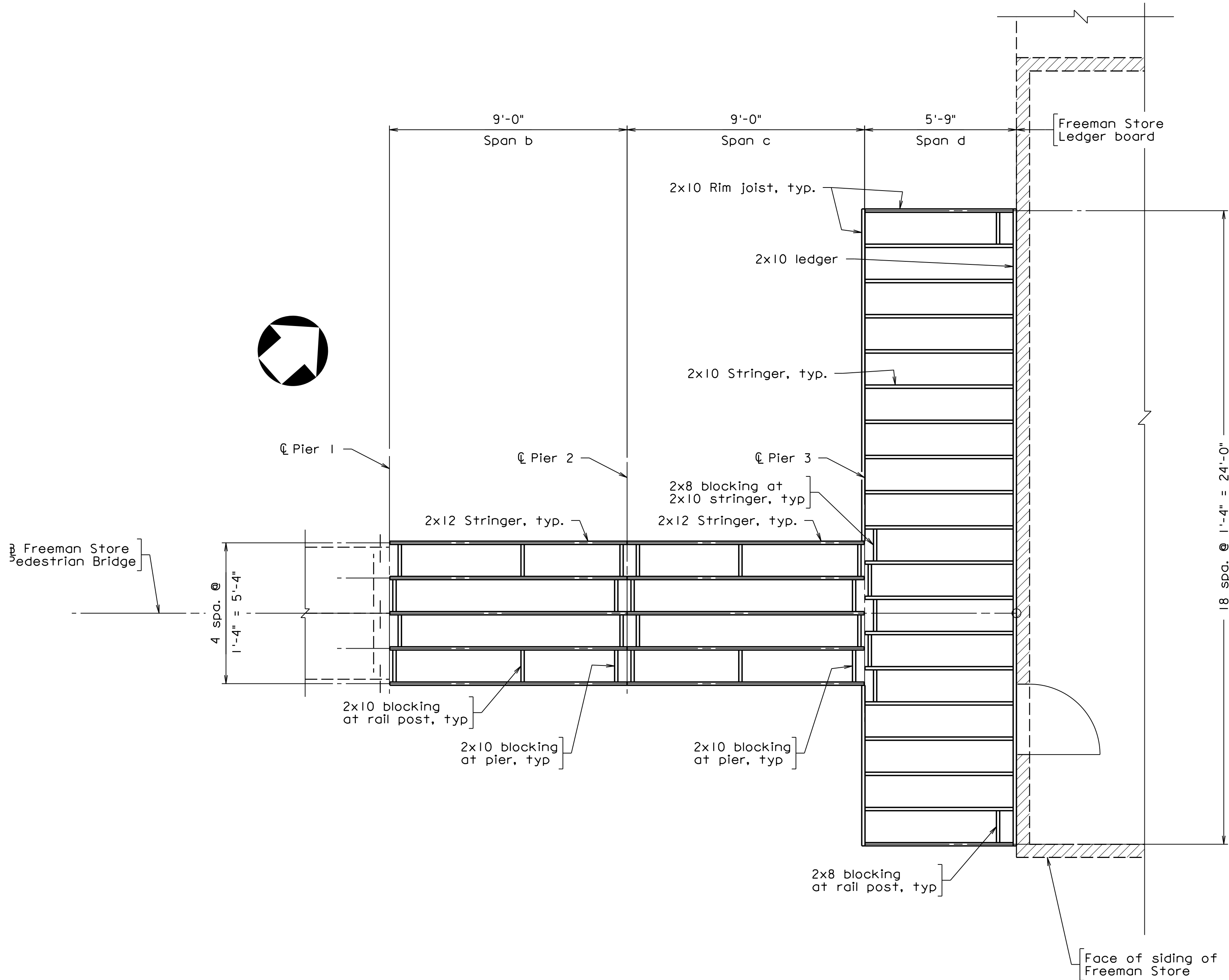




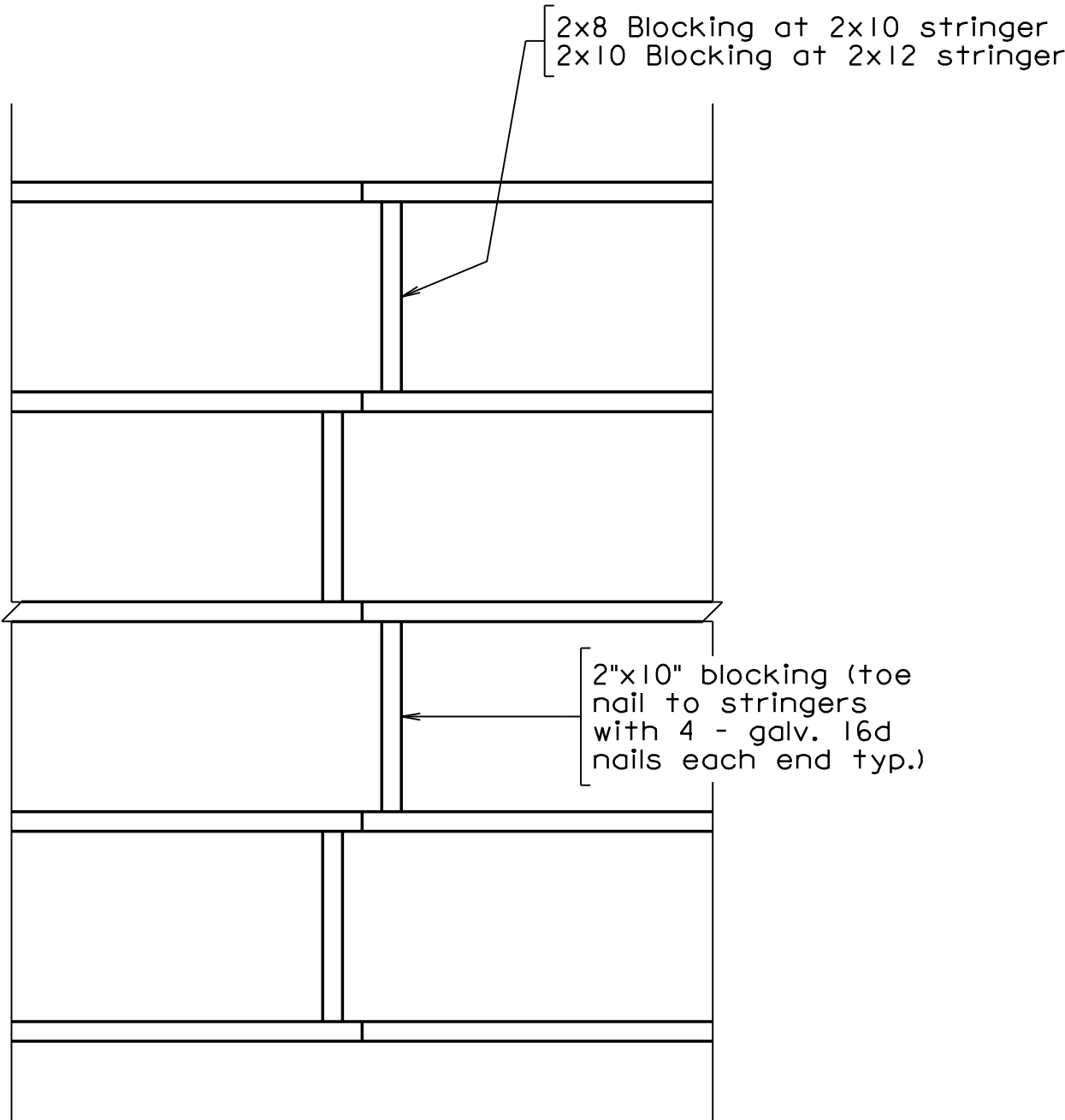
Framing Plan - Timber spans.dgn

STATE	FEDERAL AID		STATE	
	ROUTE	PROJECT	ROUTE	PROJECT
VA.	—	—	N/A	UPC 111404

Notes:  
For ledger board attachment details and miscellaneous  
superstructure details, see Sheet 15.  
For railing detail, see Sheets 16 and 17.



FRAMING PLAN SPANS b THROUGH d



STRINGER BLOCKING DETAIL



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PREFINAL PLANS

EMERGENCY POLICE - FIRE - RESCUE 911					DEC. 2018		
TOWN OF VIENNA, VIRGINIA DEPARTMENT OF PUBLIC WORKS 127 CENTER STREET S. VIENNA, VIRGINIA 22180							
R					DEPARTMENT OF PUBLIC WORKS 703-255-6380		
E							
V					FREEMAN STORE PEDESTRIAN BRIDGE FRAMING PLAN - TIMBER SPANS		
I							
S					PROJECT NO: ###		
I							
Q					PLAN NO.      DESIGNED: WRA *** - **      DRAFTED: WRA		
N							
S	△#	DESCRIPTION	BY	APPROVED	DATE	SHEET 14 of 17	
APPROVED BY THE DEPARTMENT OF PUBLIC WORKS							

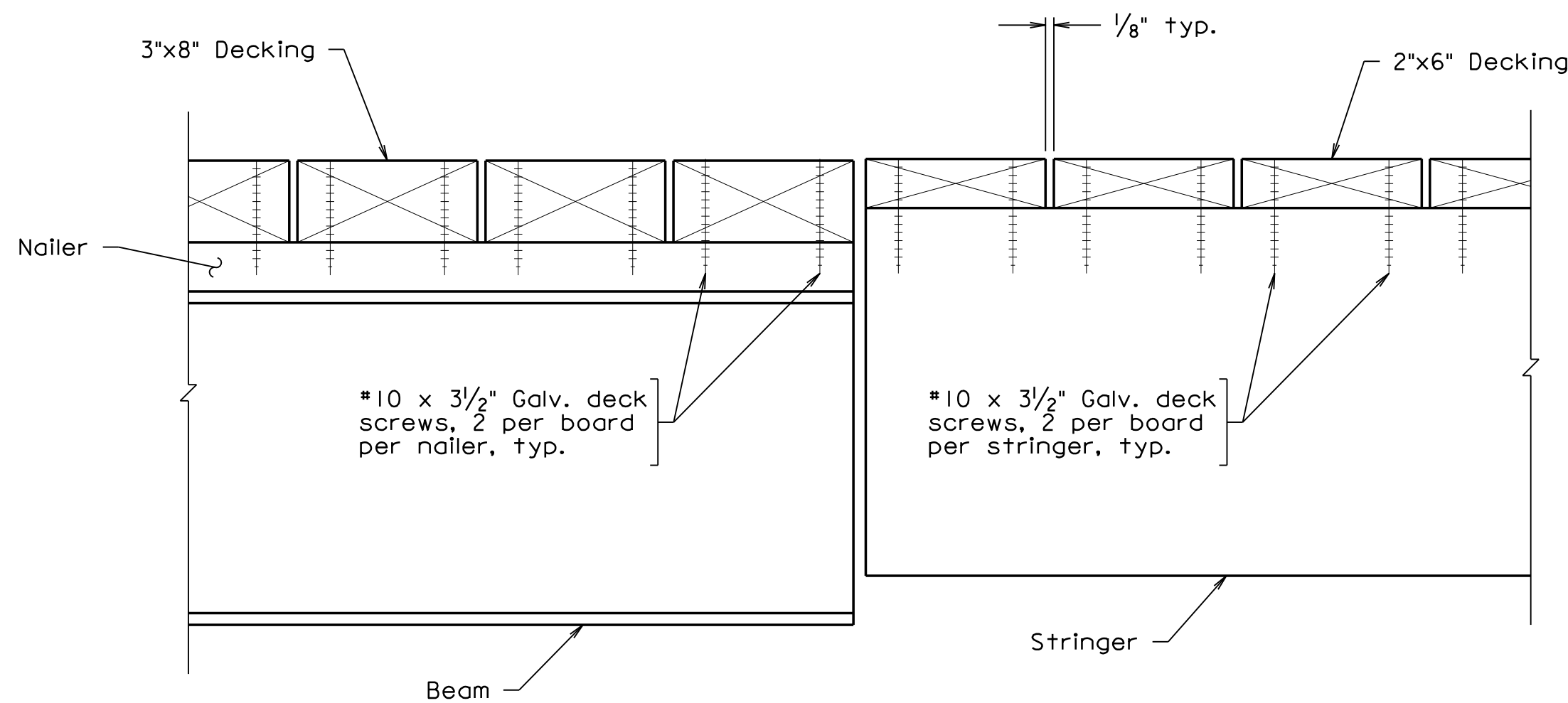
WHITMAN REQUARDT & ASSOCIATES  
RICHMOND, VA  
STRUCTURAL ENGINEER

Scale: 3/8" = 1'-0" Unless otherwise noted.

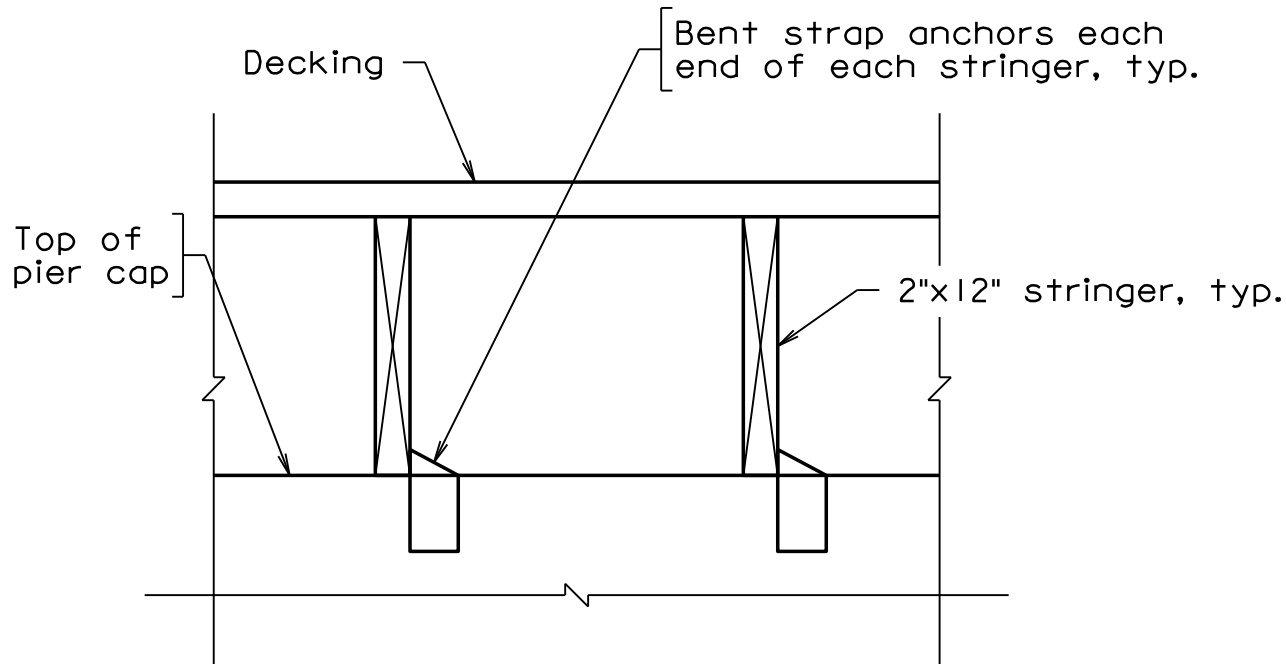
THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

Superstructure Details.dgn

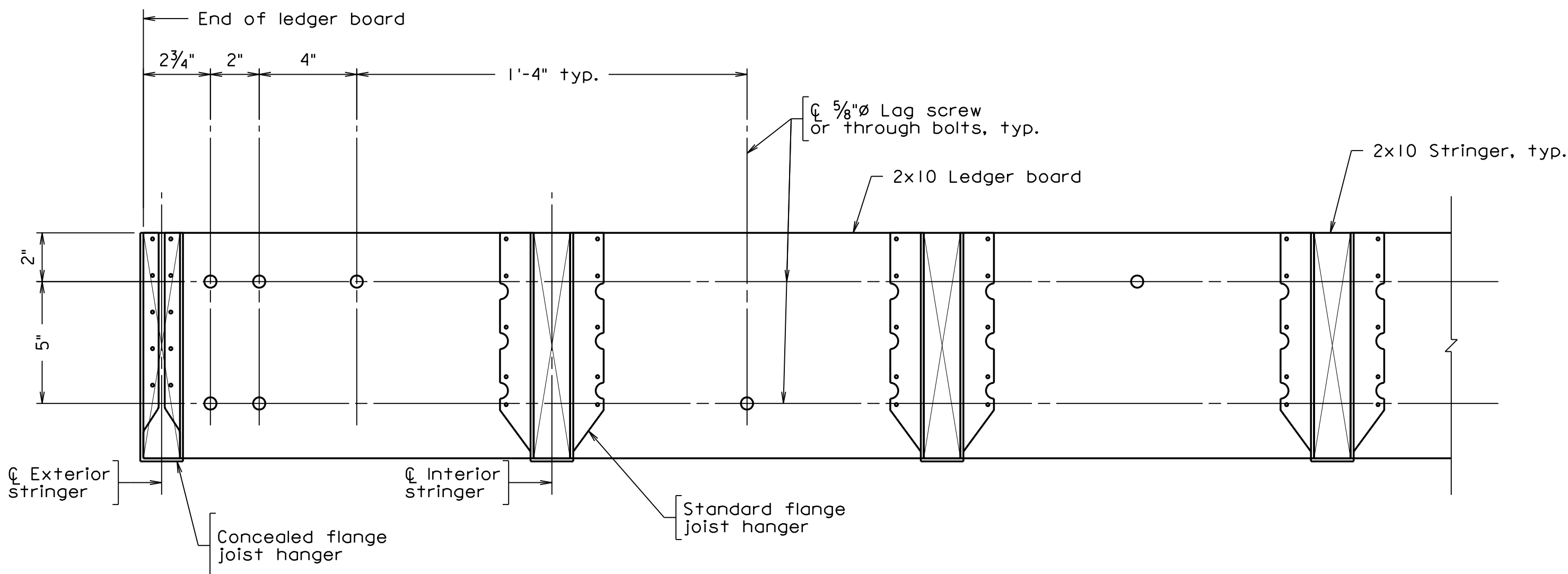
STATE	FEDERAL AID		STATE	
	ROUTE	PROJECT	ROUTE	PROJECT
VA.	—	—	N/A	UPC 111404



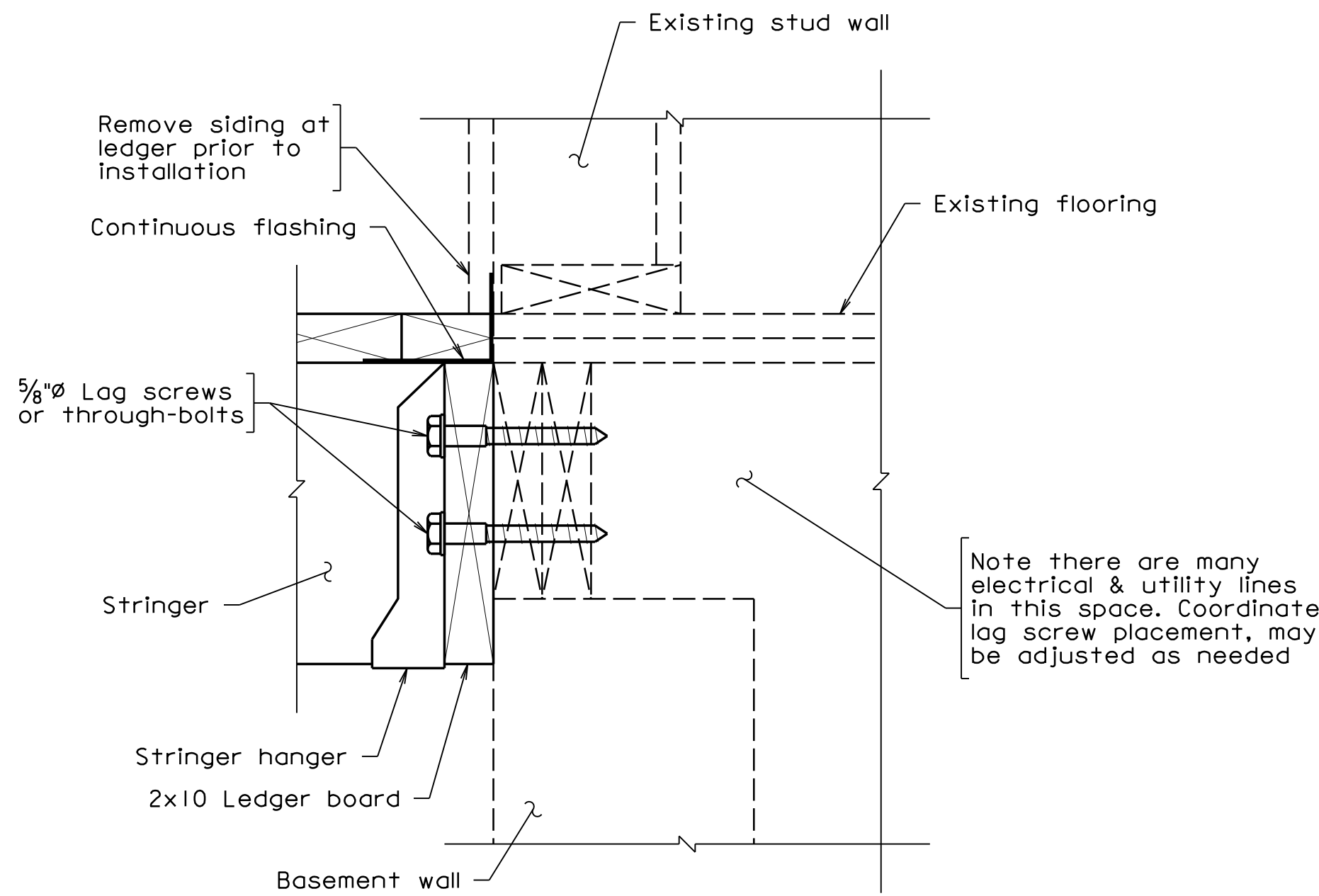
DECKING DETAILS



TYPICAL STRINGER TIEDOWN DETAIL



LEDGER BOARD PART ELEVATION



LEDGER BOARD SECTION



Whitman, Requardt & Associates, LLP

PREFINAL PLANS

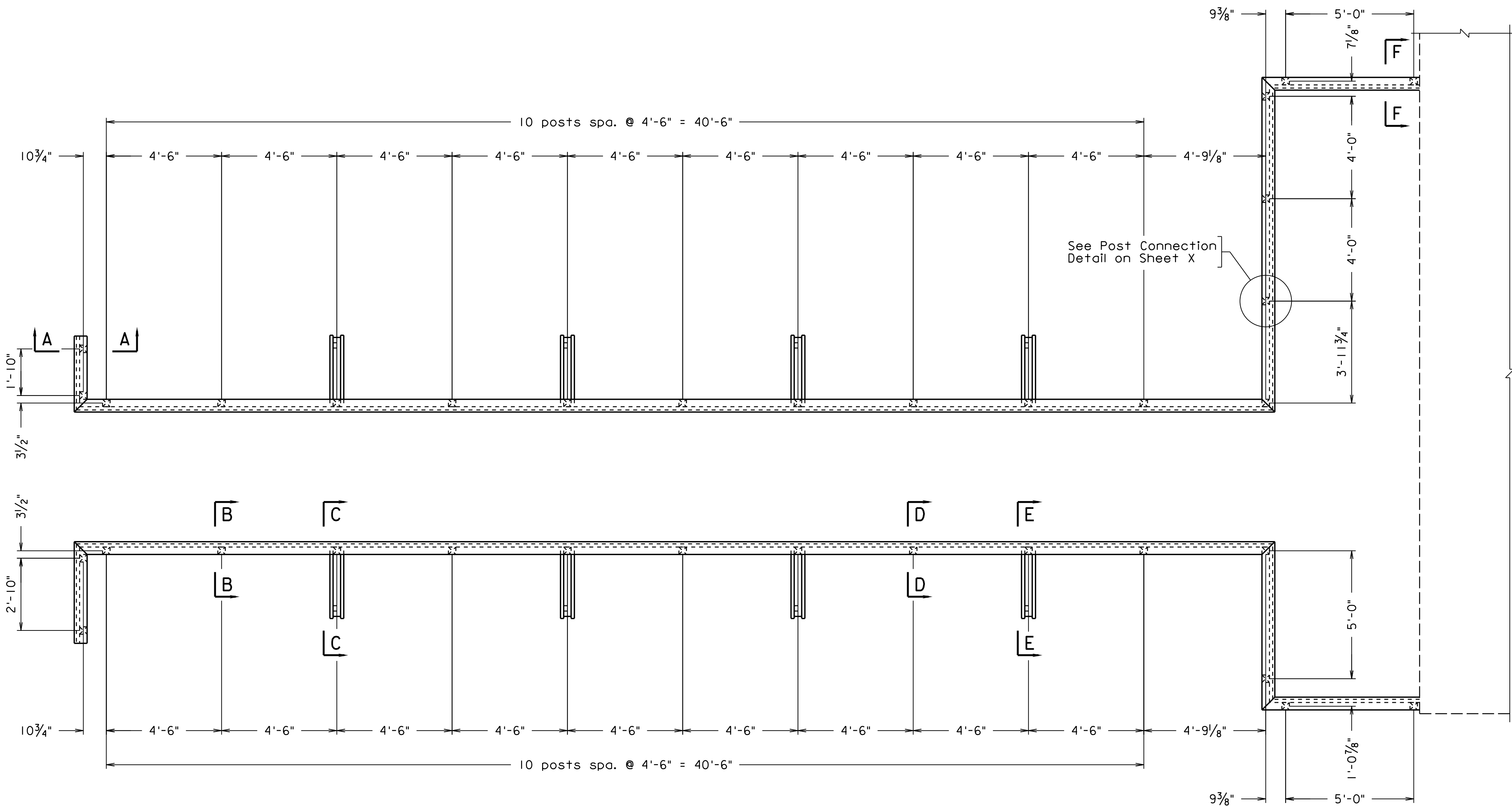
EMERGENCY POLICE – FIRE – RESCUE 911					DEC. 2018		
TOWN OF VIENNA, VIRGINIA							
DEPARTMENT OF PUBLIC WORKS							
127 CENTER STREET S. VIENNA, VIRGINIA 22180							
R					DEPARTMENT OF PUBLIC WORKS 703-255-6380		
E							
V					FREEMAN STORE PEDESTRIAN BRIDGE SUPERSTRUCTURE DETAILS		
I							
S					PROJECT NO: ###		
I							
O					PLAN NO. DESIGNED: WRA ***-**- DRAFTED: WRA		
N							
S	△#	DESCRIPTION	BY	APPROVED	DATE	SHEET 15 of 17	
APPROVED BY THE DEPARTMENT OF PUBLIC WORKS							

WHITMAN REQUARDT & ASSOCIATES  
RICHMOND, VA  
STRUCTURAL ENGINEER

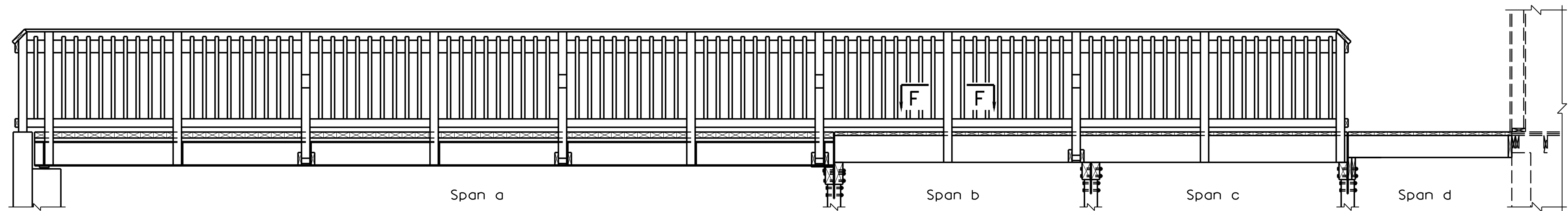
Scale: 1/2" = 1'-0" Unless otherwise noted.

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

Railing Plan and Elevation.dgn



RAILING PLAN

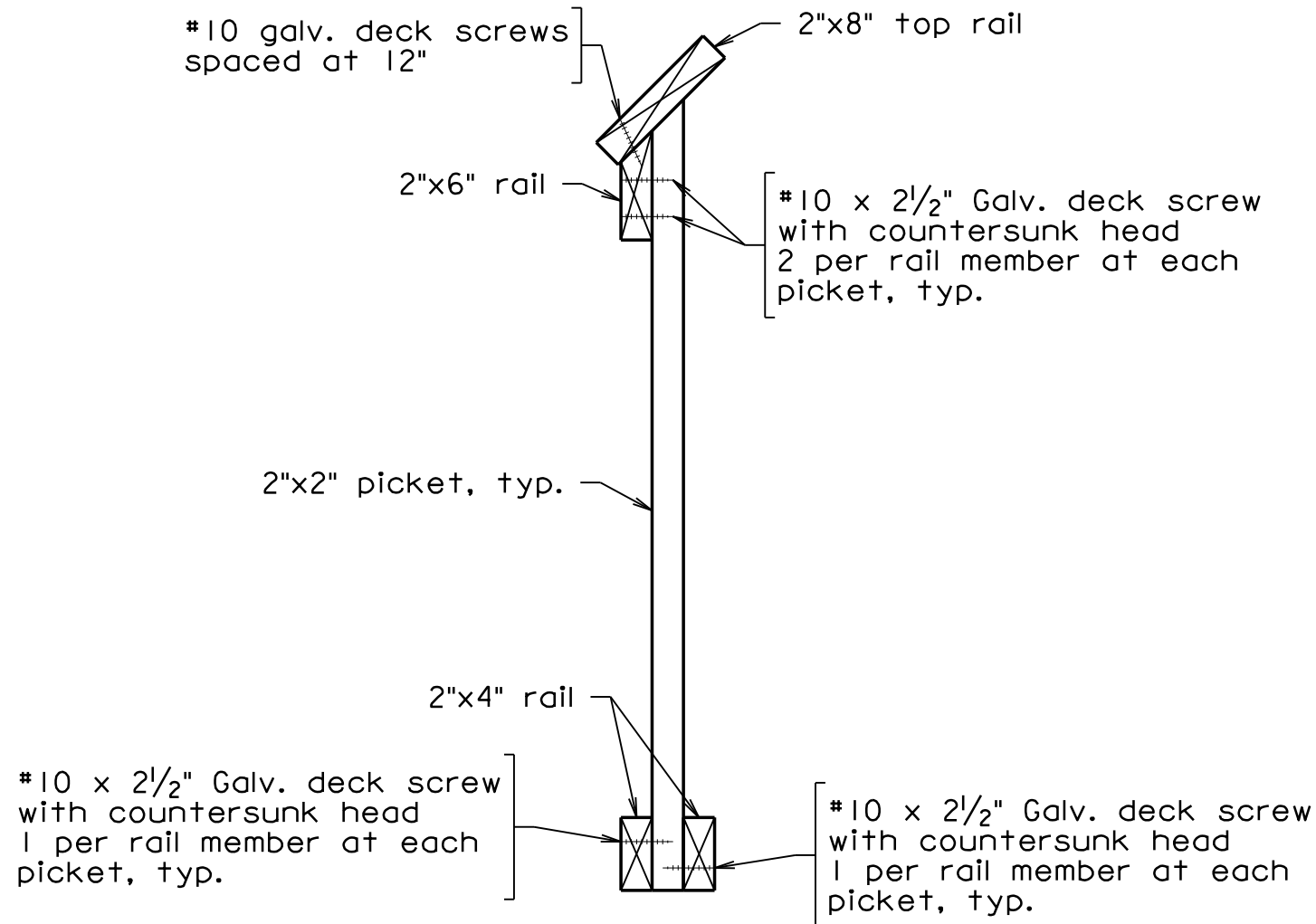


RAILING ELEVATION

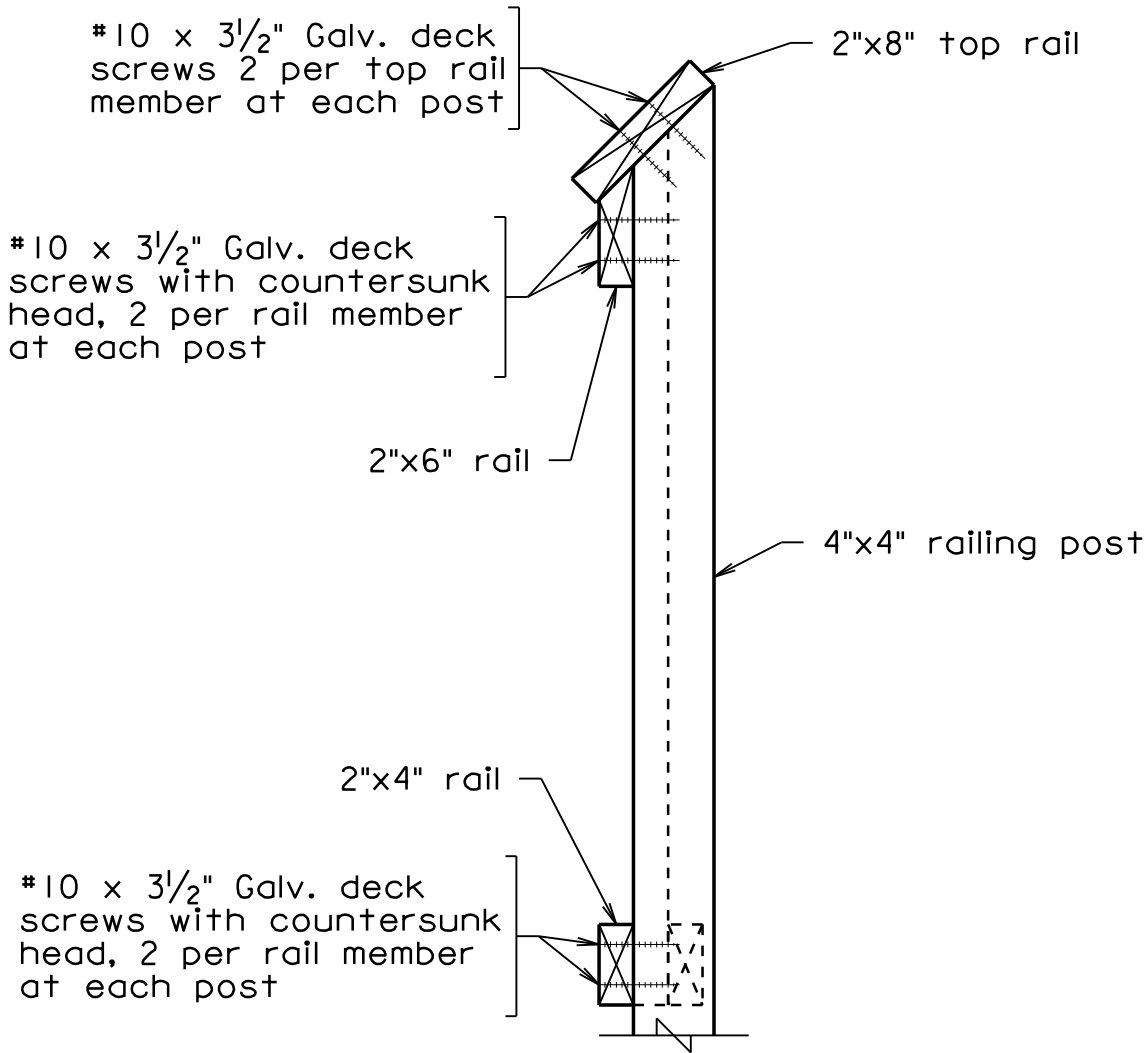
Scale: 3/8" = 1'-0" Unless otherwise noted.

STATE	FEDERAL AID		STATE	
	ROUTE	PROJECT	ROUTE	PROJECT
VA.	—	—	N/A	UPC 111404

Notes:  
See Sheet 18 for railing sections and details.



TYPICAL RAIL AND PICKET SECTION



TYPICAL RAIL AND POST SECTION



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PREFINAL PLANS

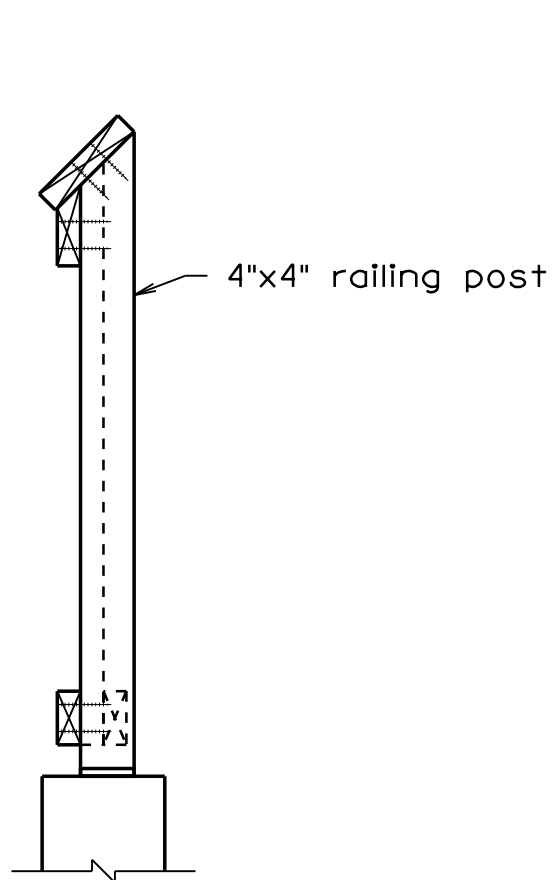
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TOWN OF VIENNA, VIRGINIA DEPARTMENT OF PUBLIC WORKS 127 CENTER STREET S. VIENNA, VIRGINIA 22180							
R					DEPARTMENT OF PUBLIC WORKS 703-255-6380		
E							
V					FREEMAN STORE PEDESTRIAN BRIDGE RAILING DETAILS		
I							
S					PROJECT NO: ###		
I							
Q					PLAN NO.      DESIGNED: WRA *** - **      DRAFTED: WRA		
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S	△#	DESCRIPTION	BY	APPROVED	DATE	SHEET 16 of 17	
APPROVED BY THE DEPARTMENT OF PUBLIC WORKS							

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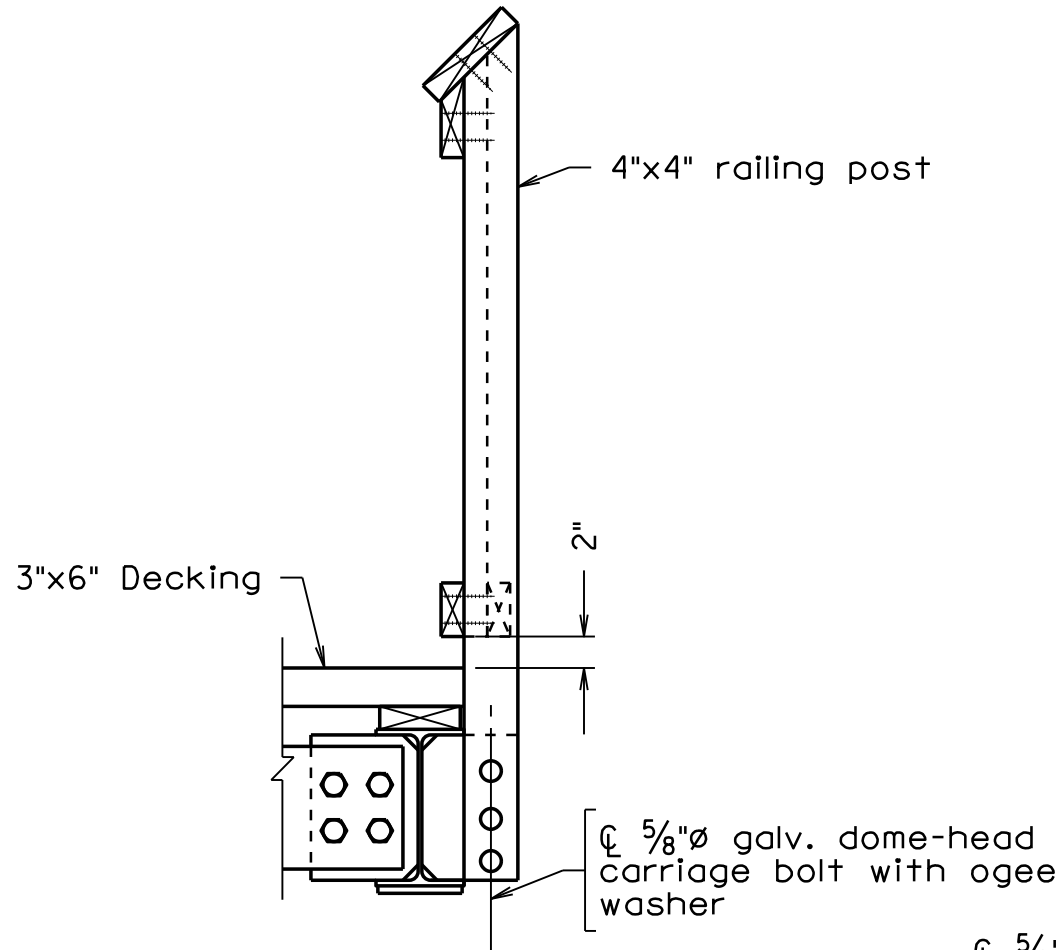


STATE	FEDERAL AID		STATE	
	ROUTE	PROJECT	ROUTE	PROJECT
VA.	—	—	N/A	UPC 111404

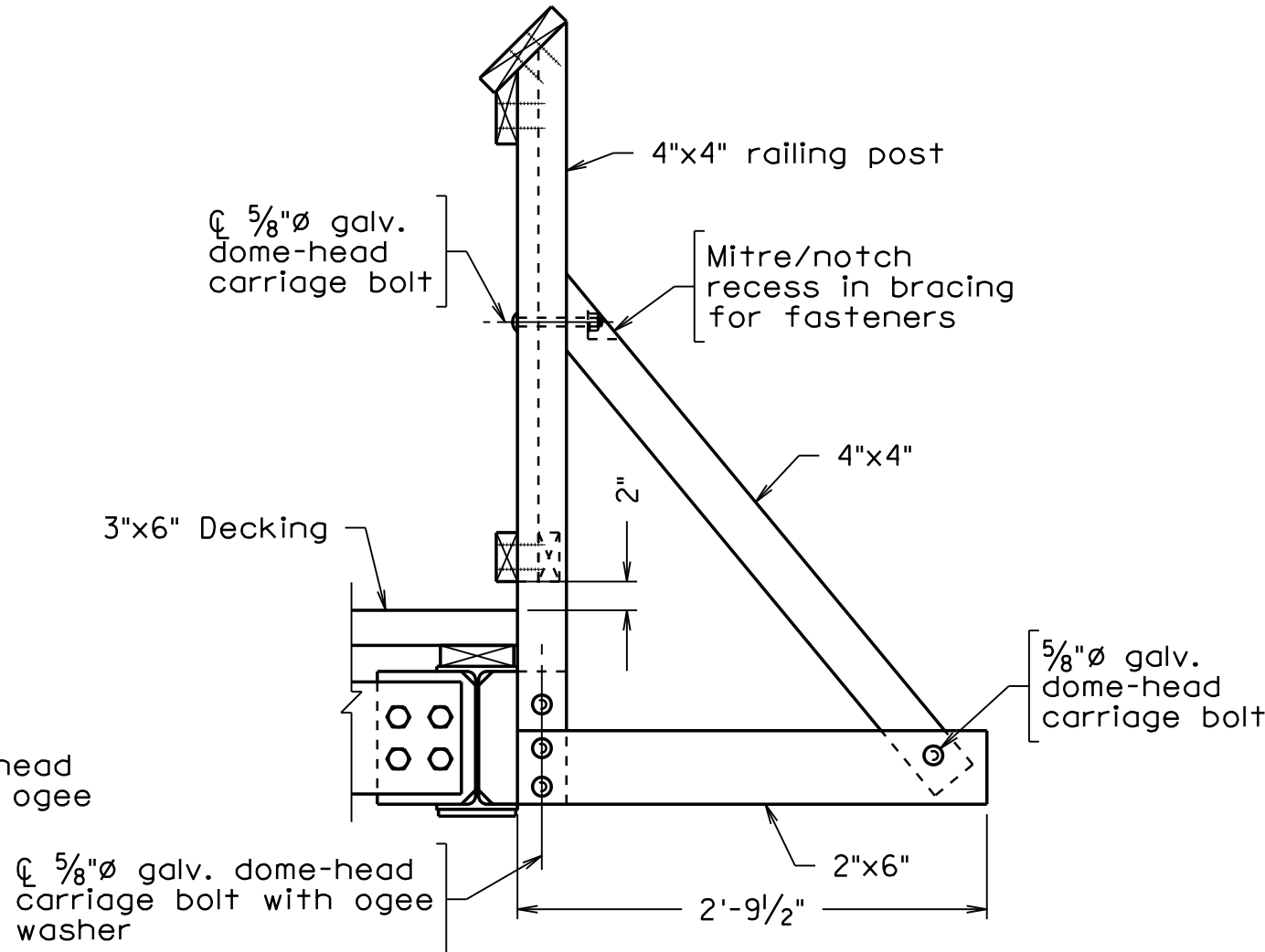
Notes:  
All hardware for timber connections, including nails shall be hot dipped galvanized in accordance with VDOT Specifications or stainless steel.



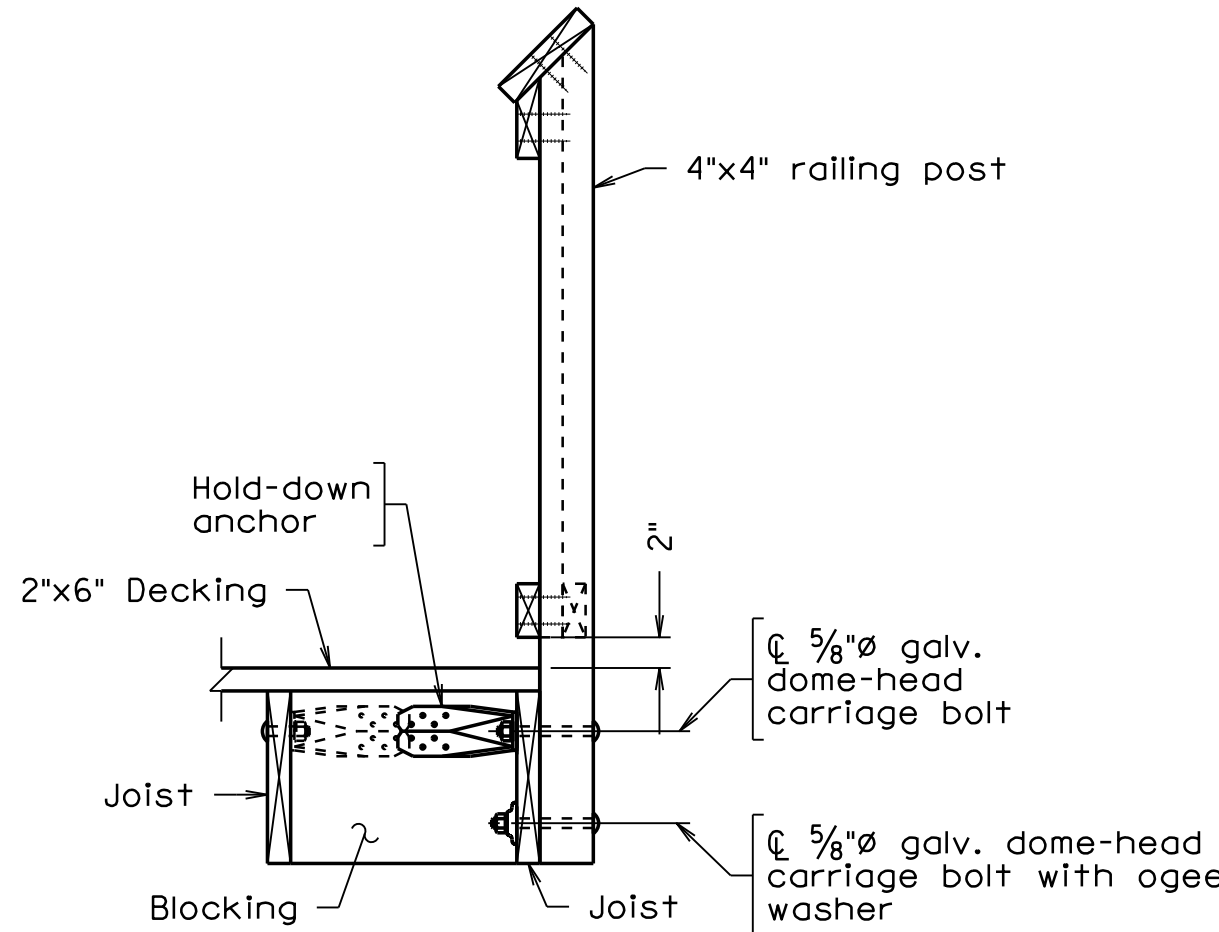
SECTION A-A  
POST CONNECTION AT ABUTMENT



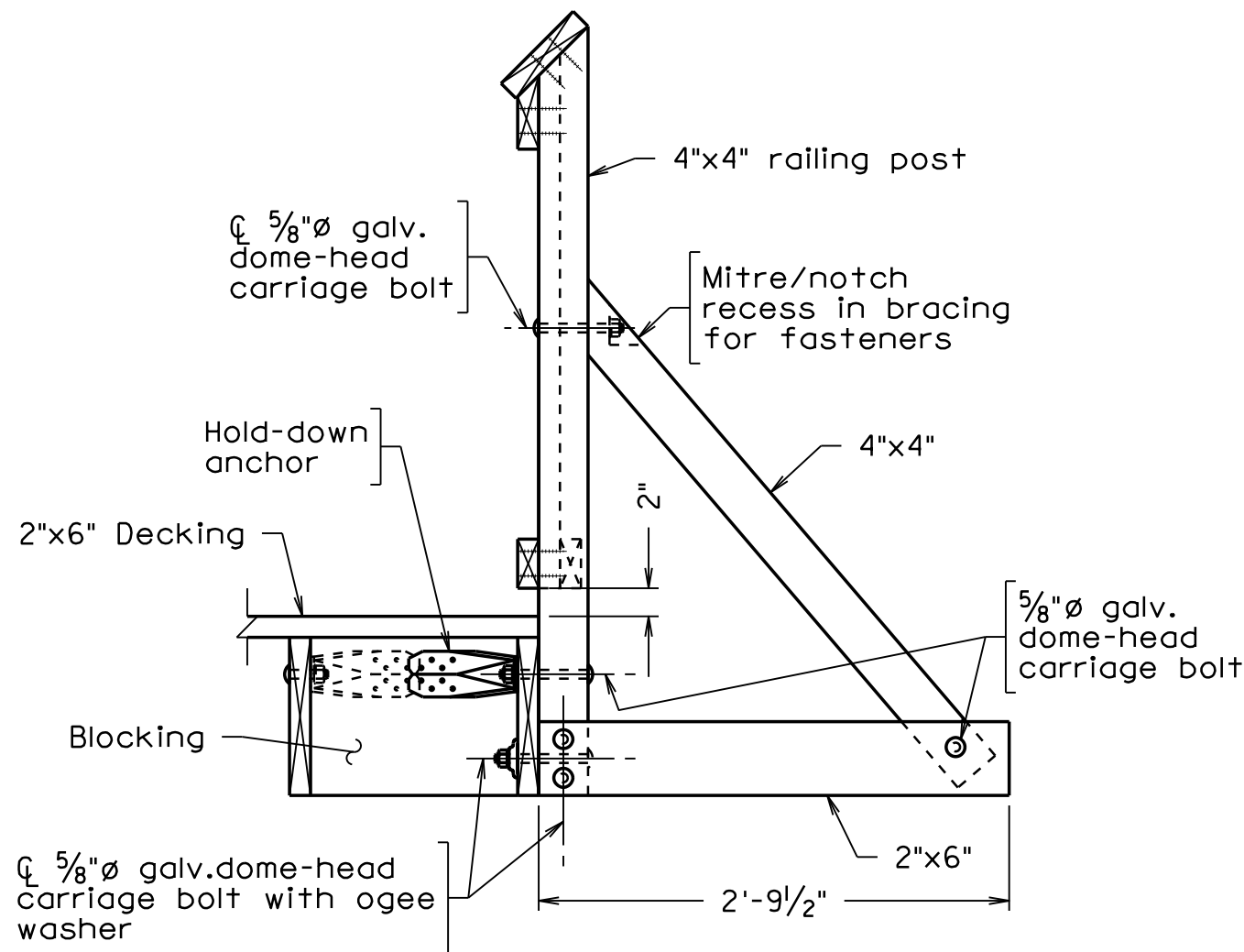
SECTION B-B  
POST CONNECTION TO STEEL SPAN A



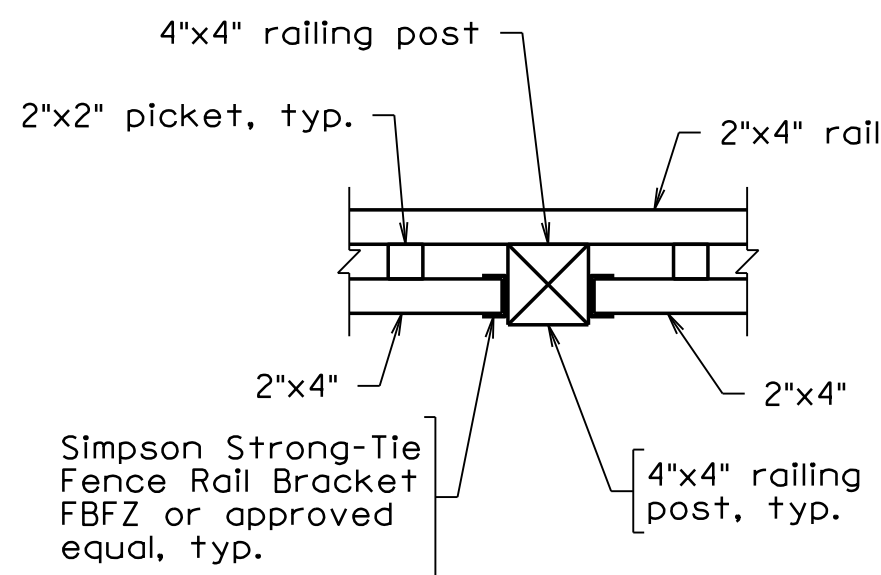
SECTION C-C  
POST CONNECTION TO STEEL SPAN A WITH KICKER



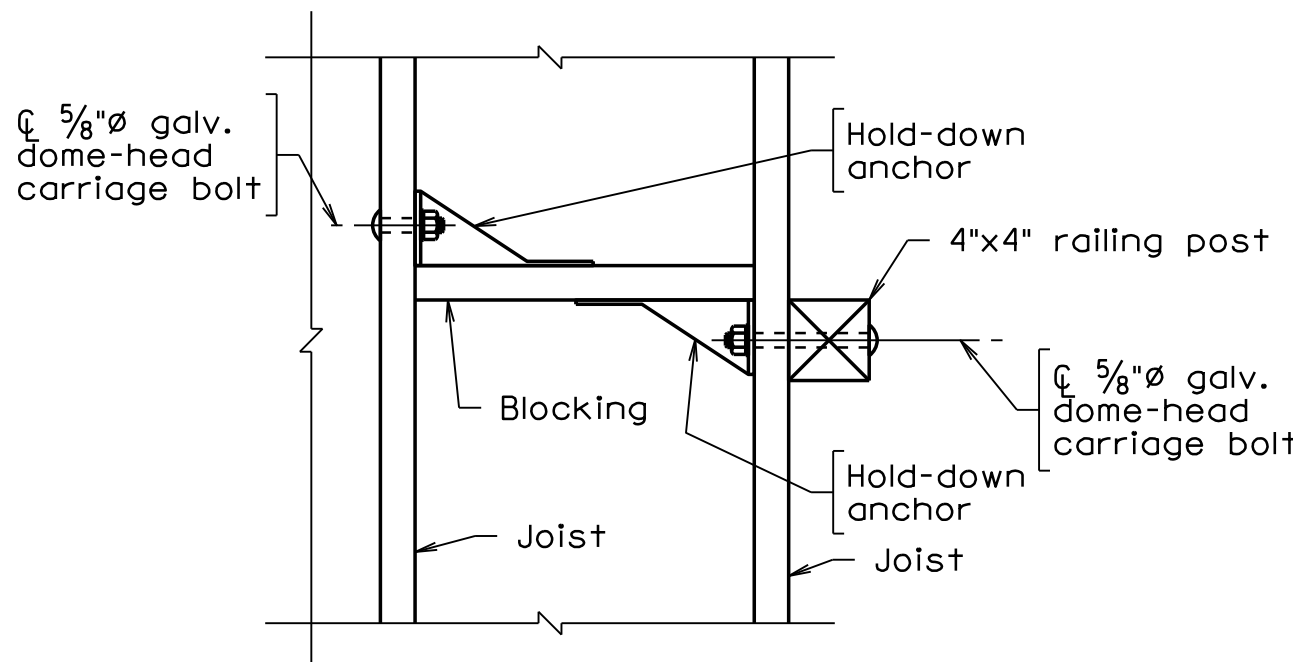
SECTION D-D  
POST CONNECTION TO TIMBER SPANS B & C



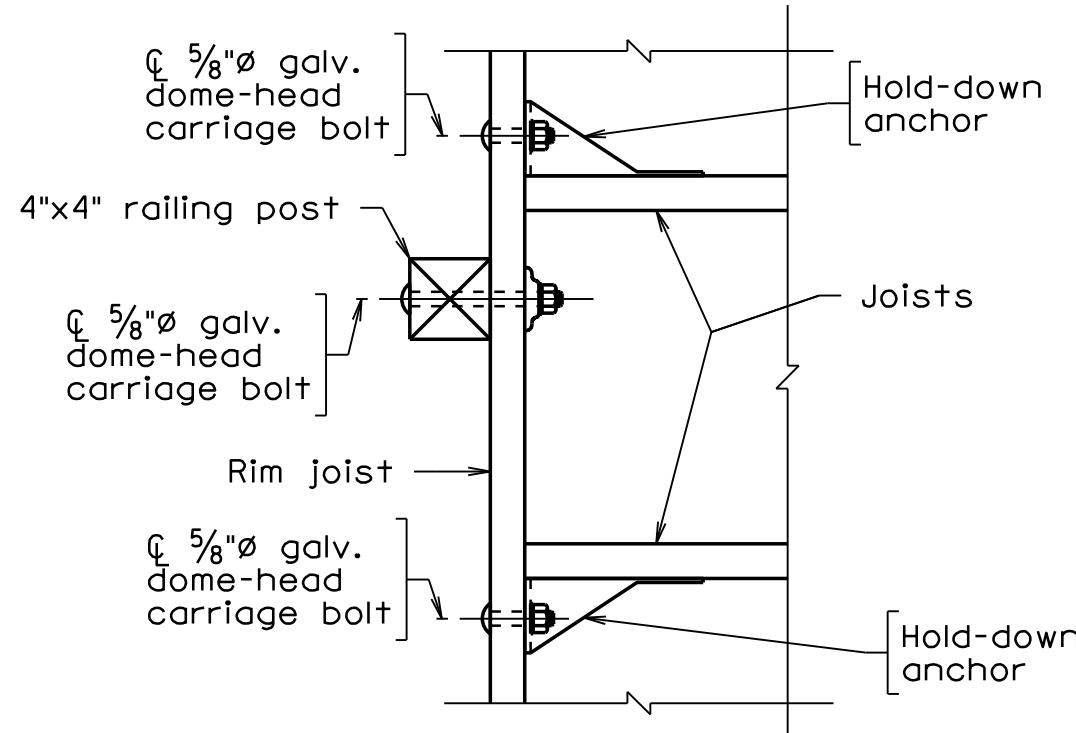
SECTION E-E  
POST CONNECTION TO TIMBER SPANS B & C WITH KICKER



SECTION F-F



POST CONNECTION  
TIMBER SPANS B, C, & D



POST CONNECTION  
BETWEEN JOISTS  
TIMBER SPAN D



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PREFINAL PLANS

EMERGENCY POLICE - FIRE - RESCUE 911					DEC. 2018		
TOWN OF VIENNA, VIRGINIA							
DEPARTMENT OF PUBLIC WORKS							
127 CENTER STREET S. VIENNA, VIRGINIA 22180							
R E V I S I O N S					DEPARTMENT OF PUBLIC WORKS 703-255-6380		
					FREEMAN STORE PEDESTRIAN BRIDGE RAILING DETAILS		
					PROJECT NO: ###		
					PLAN NO.	DESIGNED: WRA	SHEET
					*** - **	DRAFTED: WRA	17 of 17
					CHECKED: WRA		
					APPROVED BY THE DEPARTMENT OF PUBLIC WORKS		

Scale: 1" = 1'-0" Unless otherwise noted.

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