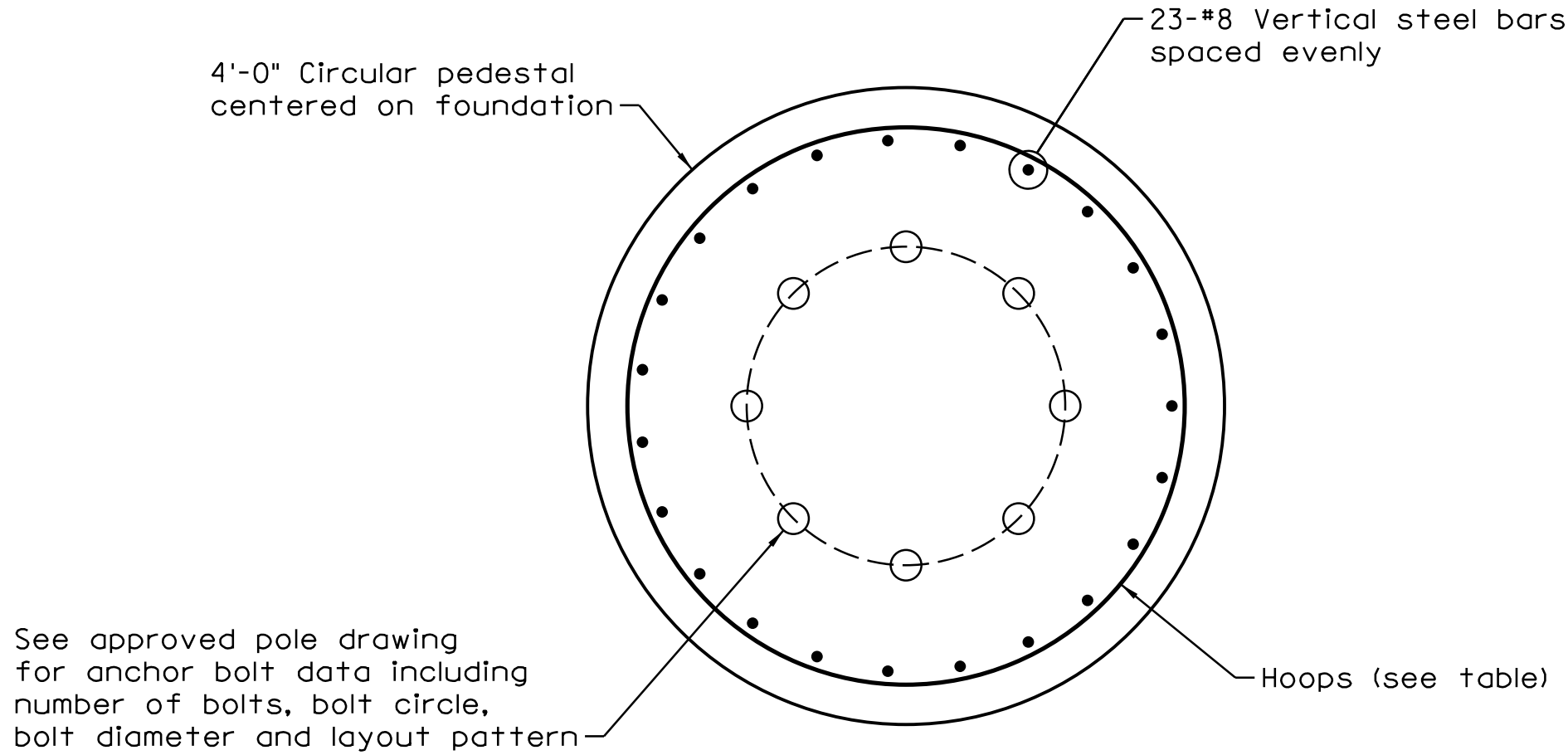
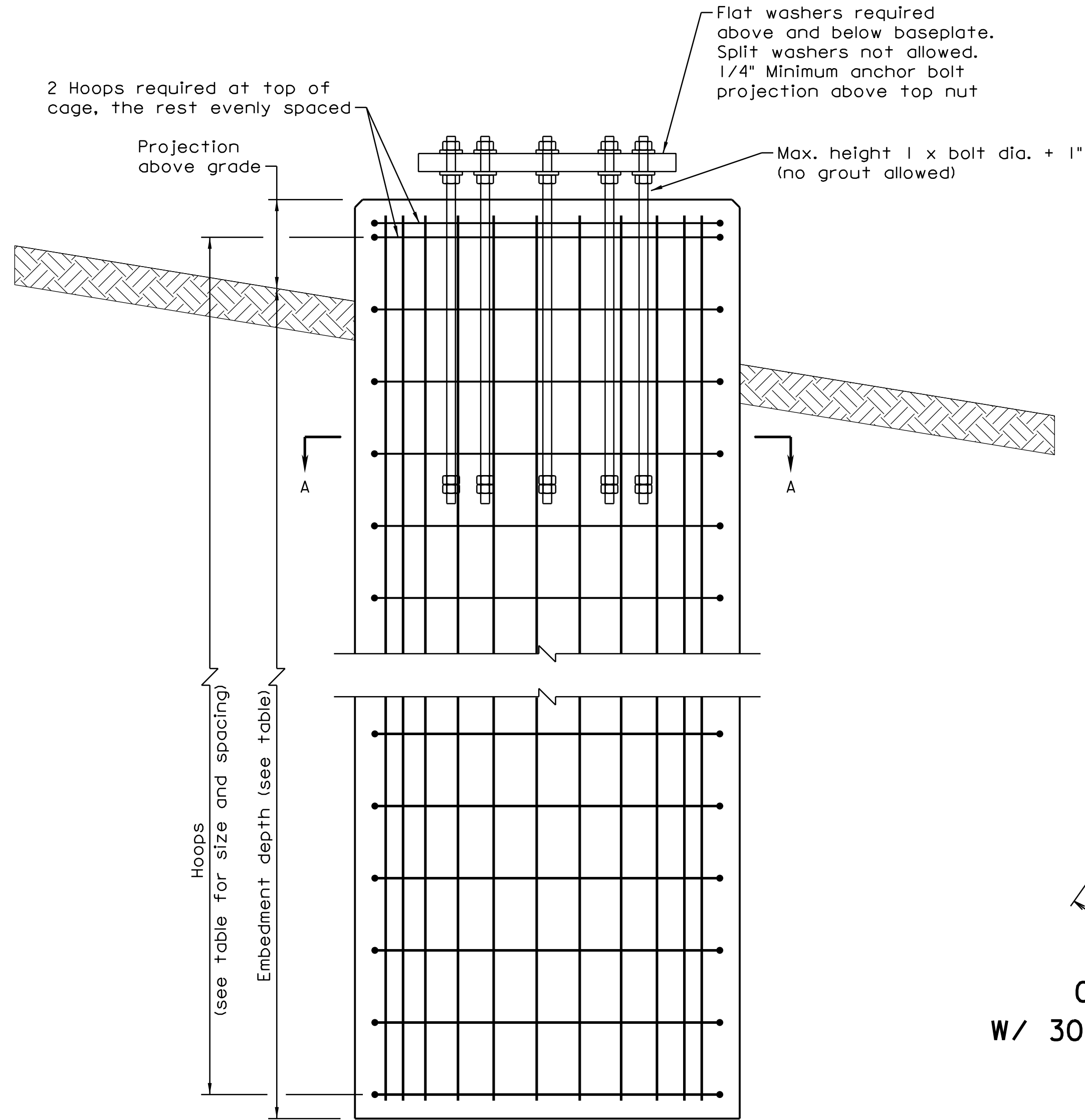


STATE	STATE		SHEET NO.
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VA.	2200 & 2625	CRCP-2019-0001	1



SECTION A-A



- NOTES
- FOUNDATION SHALL BE CAST AGAINST UNDISTURBED SOIL.
 - CONCRETE VOLUME IS AN ESTIMATE ONLY. ACTUAL CONCRETE VOLUME MAY BE SIGNIFICANTLY DIFFERENT. CONTRACTOR SHALL NOT RELY ON ESTIMATED VOLUME WHEN ORDERING MATERIAL, BUT RATHER THE ACTUAL FIELD EXCAVATED DIMENSIONS TO DETERMINE THE REQUIRED QUANTITIES.
 - GRADE IS ASSUMED TO BE 8H:1V OR FLATTER UNLESS OTHERWISE INDICATED.
 - CONTRACTOR SHALL VERIFY THE 12" PROJECTION NEEDED ABOVE GRADE PRIOR TO FABRICATION OF REINFORCEMENT. THE ENGINEER SHALL BE NOTIFIED IF ADDITIONAL PROJECTION IS REQUIRED.
 - THE FOUNDATION DESIGN IS BASED UPON THE GEOTECHNICAL DATA PROVIDED. IF ACTUAL SUBSURFACE CONDITIONS APPEAR TO SIGNIFICANTLY DIFFER FROM THE BORING LOGS THE ENGINEER SHALL BE NOTIFIED, PRIOR TO CONCRETE PLACEMENT, TO REVIEW THE DESIGN TO DETERMINE IF ANY MODIFICATIONS ARE NECESSARY.
 - FOUNDATION DESIGN IS BASED ON DRY CONDITIONS. CONTRACTOR SHALL PROVIDE DEWATERING AS REQUIRED TO MEET DRY CONDITIONS AS DEFINED IN S&B I&M 90.2.
 - SEE INDIVIDUAL BORING LOGS FOR SPECIFIC POLE DATA.
 - REFER TO APPROVED POLE DRAWINGS FOR ANCHOR BOLT DATA INCLUDING BOLT CIRCLE, BOLT DIAMETER, NUMBER OF BOLTS, AND BOLT LAYOUT PATTERN.
 - CONCRETE SHALL BE VDOT CLASS A3, $f'_c = 3000$ PSI, (MIN.) AIR ENTRAINED.
 - REINFORCEMENT SHALL BE ASTM A615 GR 60 DEFORMED BARS.
 - MAINTAIN AT LEAST 3" COVER ON ALL REINFORCEMENT.
 - REINFORCEMENT DIMENSIONS ARE OUT-TO-OUT.
 - HOOP OVERLAPS SHALL BE STAGGERED VERTICALLY BETWEEN ADJACENT LAYERS.
 - REINFORCEMENT SHALL BE TIED. NO WELDING TO REBAR OR ANCHOR BOLTS IS PERMITTED.
 - CONDUIT LAYOUT IS NOT SHOWN AND SHALL BE COORDINATED WITH THE ELECTRICAL CONTRACTOR TO AVOID INTERFERENCE WITH STEEL REINFORCEMENT AND ANCHOR BOLT PLACEMENT.
 - ANY REQUIRED GROUNDING ROD/PROVISIONS NOT SHOWN.
 - MARK TOP OF FOUNDATION WITH A TROWEL TO INDICATE TYPE AND DEPTH.

POLE ID	LOCATION	BORING	PIER DIA (FT)	TOTAL LENGTH (FT)	PROJ. ABOVE GRADE (FT)	DEPTH BELOW GRADE (FT)	REINFORCING			GRADE	ESTIMATED CONCRETE VOLUME LESS STEEL VOL. (CU. YDS.)
							VERTICAL	TRANSVERSE/HOOPS			
								QTY/SIZE	OUT-TO-OUT DIA. (IN)		
POLE A 60' ARM	NW CORNER	B-5	4.0	13.5	1.0	12.5	23 - #8	42	20 - #4 @ 9	8H : 1V	6.3
POLE C 60' ARM	SE CORNER	B-4	4.0	13.5	1.0	12.5	23 - #8	42	20 - #4 @ 9	8H : 1V	6.3
POLE D 60' ARM	SW CORNER	B-3	4.0	13.5	1.0	12.5	23 - #8	42	20 - #4 @ 9	8H : 1V	6.3

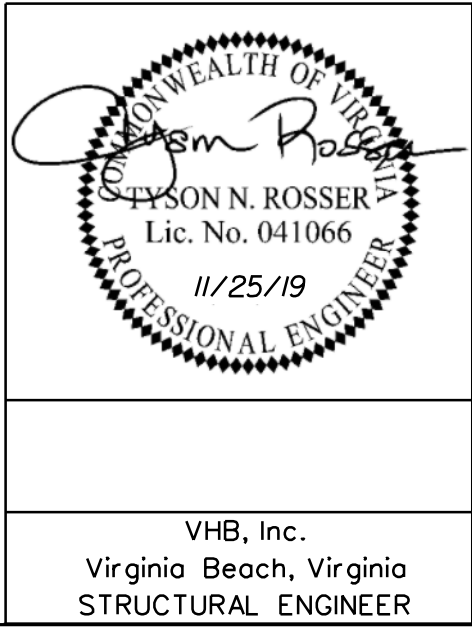
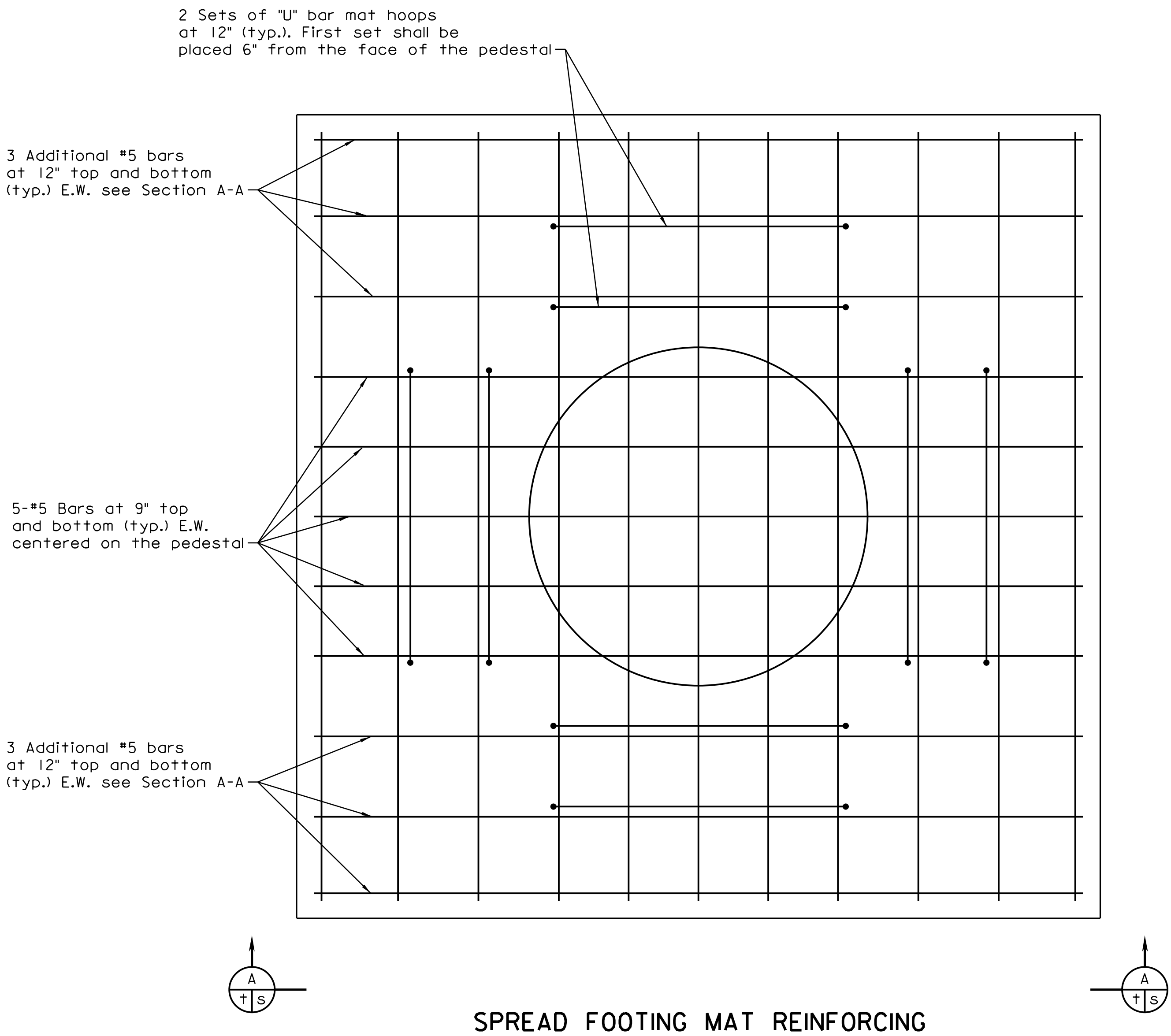
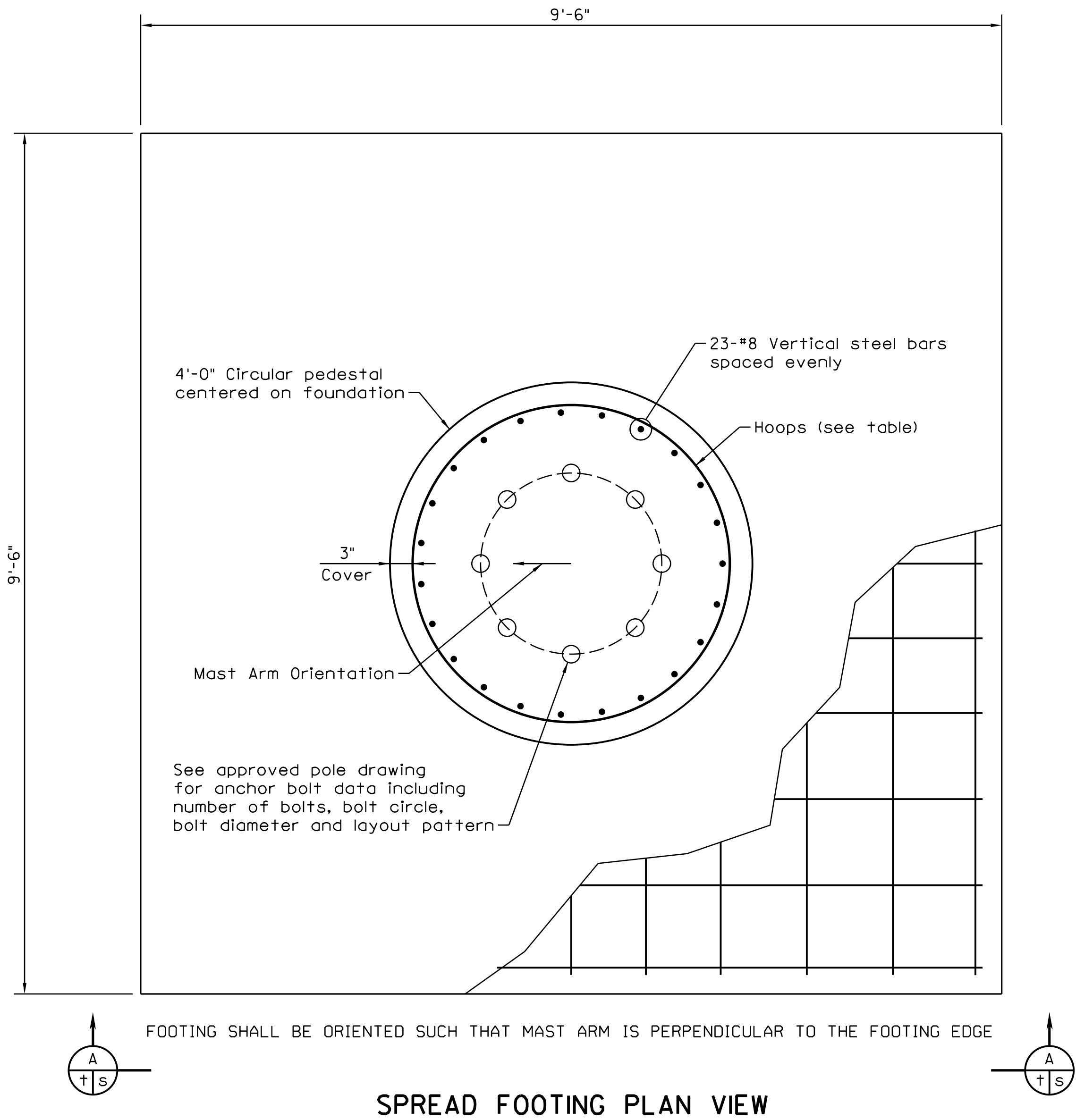
VHB, Inc.


Virginia Beach, Virginia

STRUCTURAL ENGINEER

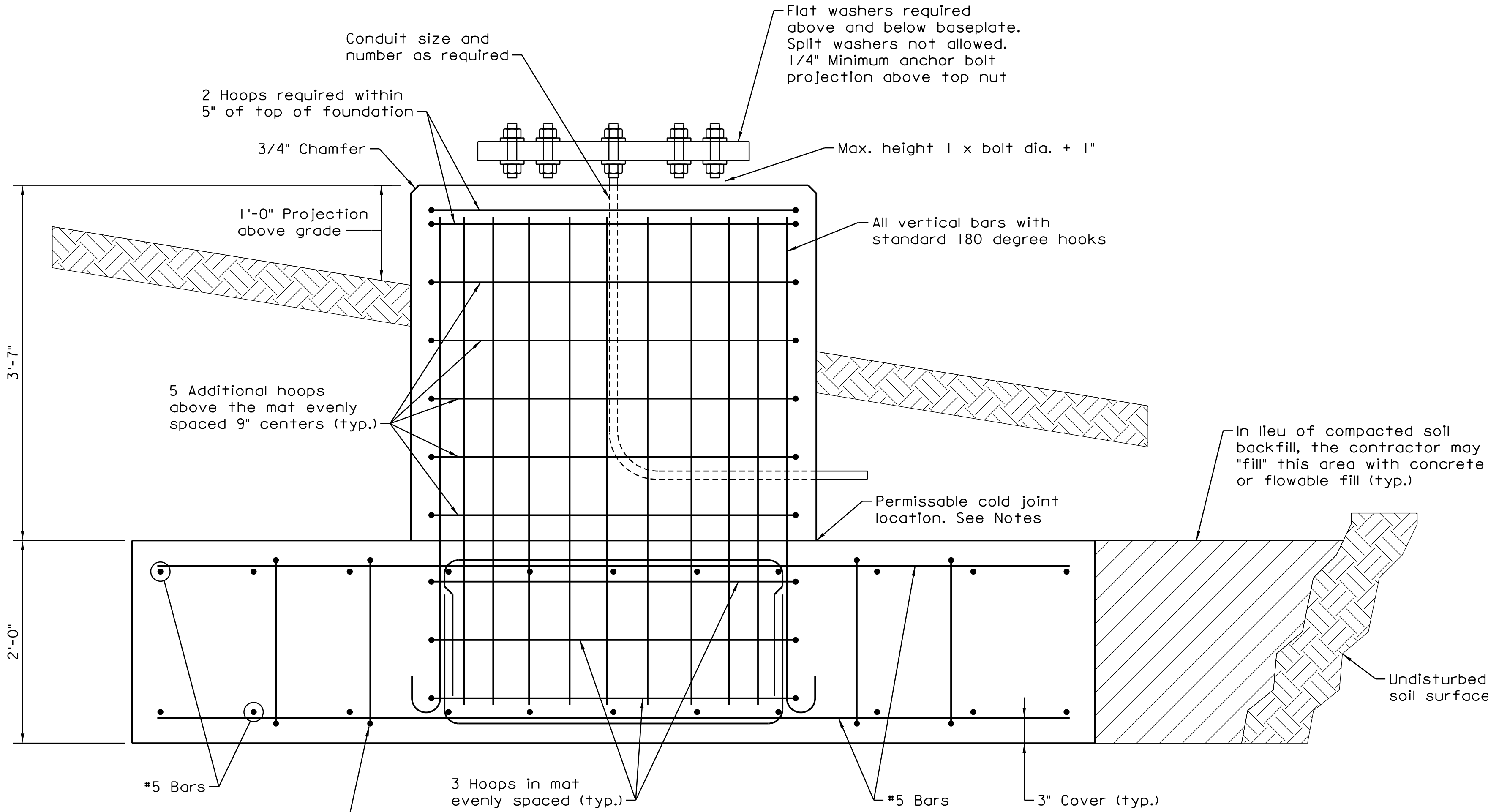
REVISIONS		DRILLED SHAFT DETAILS	
Date	Initial	TRAFFIC SIGNAL POLE FOUNDATIONS TALL CEDARS PARKWAY (RTE.2200) & STONE SPRINGS BOULEVARD (RTE.2625) LOUDOUN COUNTY	
		<div>Vanasse Hangen Brustlin, Inc. Engineers, Planners & Scientists 1775 Greensboro Station Place, Suite 200 Tysons, VA 22102 (703)847-3071</div>	N. T. S. Date: NOVEMBER 2019
DRAWN: BM		DESIGNED: KD	CHECKED: KP/TR
PLAN NO.		PROJECT	FILE NO.
		CRCP-2019-0001	
			SHEET NO.
			1

STATE	STATE		SHEET NO.
	ROUTE	PROJECT	
VA.	2200 & 2625	CRCP-2019-0001	2



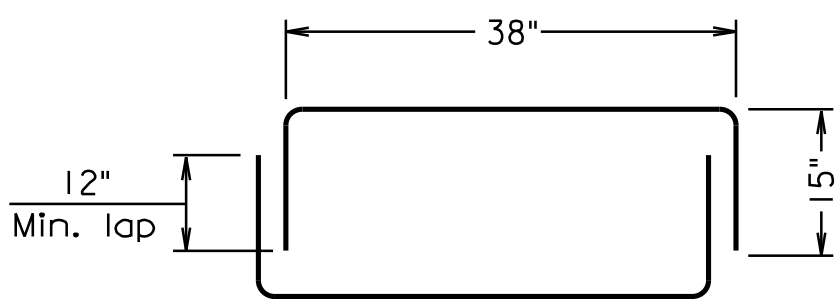
REVISIONS		SPREAD FOOTING FOUNDATION	
Date	Initial	TRAFFIC SIGNAL POLE FOUNDATIONS TALL CEDARS PARKWAY (RTE.2200) & STONE SPRINGS BOULEVARD (RTE.2625) LOUDOUN COUNTY	
		 Vanasse Hangen Brustlin, Inc. Engineers, Planners & Scientists 1775 Greensboro Station Place, Suite 200 Tysons, VA 22102 (703)847-3071	N. T. S.
			Date: NOVEMBER 2019
		DRAWN: BM	DESIGNED: KD
		CHECKED: KP/TR	File: 38026.39 Sheet: 2

STATE	STATE		SHEET NO.
	ROUTE	PROJECT	
VA.	2200 & 2625	CRCP-2019-0001	3

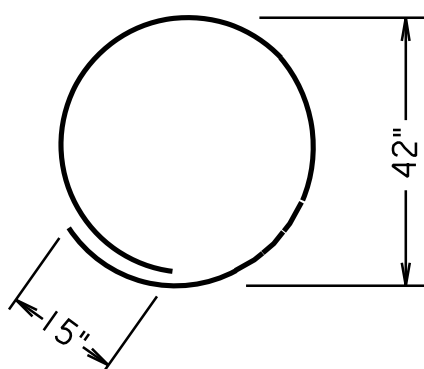


SECTION A-A

REINFORCING SCHEDULE (All Dimensions Are Out-To-Out)				
ITEM	QTY	BAR SIZE	LENGTH (IN)	COMMENT
PEDESTAL REINFORCING				
VERTICAL	24	#9	61	W/ STANDARD 180 DEG HOOK
CLOSED HOOPS	10	#4	132	SEE DIMENSION BELOW
MAT REINFORCING				
UPPER LAYER	20	#5	108	
LOWER LAYER	20	#5	108	
MAT HOOPS	8	#5		SEE DIMENSION BELOW



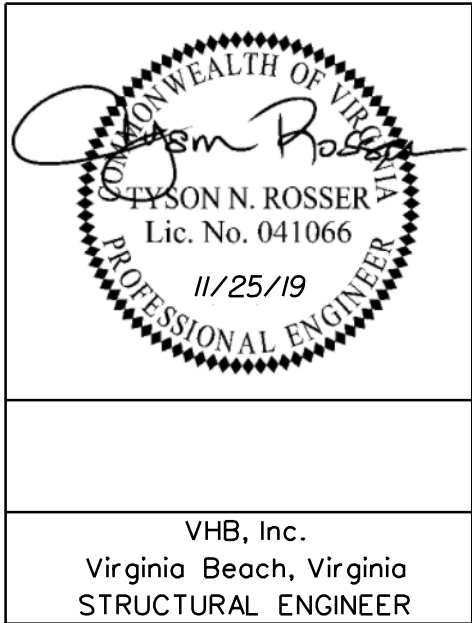
"U" SECTION TO FORM
MAT HOOPS




CLOSED HOOPS
W/ 30 BAR DIA. OVERLAP

NOTES

- FOOTING BEARING SURFACE SHALL BE NATURAL AND UNDISTURBED SOIL. THE BEARING SURFACE SHALL BE FREE OF EXCAVATED MATERIAL AND DEBRIS PRIOR TO CONCRETE PLACEMENT.
- EXISTING UTILITIES IN PROXIMITY OF THE PROPOSED FOOTING SHALL BE LOCATED BY HAND EQUIPMENT TO VERIFY THEY ARE NOT IN CONFLICT WITH THE PROPOSED FOUNDATION.
- GRADE IS ASSUMED TO BE 8H:1V OR FLATTER UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL VERIFY THE 12' PROJECTION NEEDED ABOVE GRADE PRIOR TO FABRICATION OF REINFORCEMENT. THE ENGINEER SHALL BE NOTIFIED IF ADDITIONAL PROJECTION IS REQUIRED.
- THE FOUNDATION DESIGN IS BASED UPON THE GEOTECHNICAL DATA PROVIDED. IF ACTUAL SUBSURFACE CONDITIONS APPEAR TO SIGNIFICANTLY DIFFER FROM THE BORING LOGS THE ENGINEER SHALL BE NOTIFIED, PRIOR TO CONCRETE PLACEMENT, TO REVIEW THE DESIGN TO DETERMINE IF ANY MODIFICATIONS ARE NECESSARY.
- SEE INDIVIDUAL BORING LOGS FOR SPECIFIC POLE DATA.
- ASSUMED MINIMUM ALLOWABLE BEARING PRESSURE = 3.00 KSF.
- MAXIMUM APPLIED BEARING PRESSURE = 1.88 KSF.
- REFER TO APPROVED POLE DRAWINGS FOR ANCHOR BOLT DATA INCLUDING BOLT CIRCLE, BOLT DIAMETER, NUMBER OF BOLTS, AND BOLT LAYOUT PATTERN.
- CONCRETE SHALL BE VDOT CLASS A3, $f'_c = 3000$ PSI, (MIN.) AIR ENTRAINED.
- IT IS PREFERRED ENTIRE FOUNDATION TO BE CAST MONOLITHICALLY. IF PEDESTAL IS CAST SEPARATELY THEN A DOT APPROVED HIGH STRENGTH EPOXY BONDING AGENT MUST BE USED AT THE COLD JOINT INTERFACE.
- REINFORCEMENT SHALL BE ASTM A615 GR 60 DEFORMED BARS.
- UNLESS OTHERWISE NOTED, REINFORCING BAR LOCATIONS ARE EVENLY SPACED OVER THE REQUIRED DIMENSION. HOWEVER, ANY INDIVIDUAL BAR'S LOCATION MAY BE FIELD ADJUSTED TO AVOID INTERFERENCE.
- REINFORCEMENT DIMENSIONS ARE OUT-TO-OUT.
- HOOP OVERLAPS SHALL BE STAGGERED VERTICALLY BETWEEN ADJACENT LAYERS.
- REINFORCEMENT SHALL BE TIED. NO WELDING TO REBAR OR ANCHOR BOLTS IS PERMITTED.
- 2007 VDOT ROAD AND BRIDGE SPECIFICATIONS SECTION 406.03 PROCEDURES - SECT.(D) - SECT.2.) SAYS: THE USE OF PIECES OF GRAVEL, STONE, BRICK, CONCRETE, METAL PIPE OR WOODEN BLOCKS WILL NOT BE PERMITTED AS SUPPORTS OR SPACERS FOR REINFORCING STEEL. THE USE OF PRECAST CONCRETE BLOCK SUPPORTS WILL BE PERMITTED PROVIDED BLOCKS ARE FURNISHED IN CORRECT THICKNESS AND ARE SHAPED OR TIED TO PREVENT SLIPPAGE FROM BENEATH REINFORCING BARS.
- CONDUIT LAYOUT IS NOT SHOWN AND SHALL BE COORDINATED WITH THE ELECTRICAL CONTRACTOR TO AVOID INTERFERENCE WITH STEEL REINFORCEMENT AND ANCHOR BOLT PLACEMENT.
- ANY REQUIRED GROUNDING ROD/PROVISIONS NOT SHOWN.
- MARK TOP OF FOUNDATION WITH A TROWEL TO INDICATE TYPE AND DEPTH.



REVISIONS		SPREAD FOOTING SECTION	
Date	Initial	TRAFFIC SIGNAL POLE FOUNDATIONS TALL CEDARS PARKWAY (RTE.2200) & STONE SPRINGS BOULEVARD (RTE.2625) LOUDOUN COUNTY	
		 Vanasse Hangen Brustlin, Inc. Engineers, Planners & Scientists 1775 Greensboro Station Place, Suite 200 Tysons, VA 22102 (703)847-3071	N. T. S.
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