

**NOTES**

THE GUARDRAIL ANCHOR ASSEMBLY SHALL CONSIST OF A 1/4" HOLD DOWN PLATE AND 7 - 1/8" Ø BOLTS WITH NUTS AND WASHERS.

THE HOLD-DOWN PLATE SHALL CONFORM TO AASHTO M270 GRADE 36. AFTER FABRICATION, THE HOLD-DOWN PLATE SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH AASHTO M111.

BOLTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A307 AND NUTS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M291. BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED. AT THE CONTRACTOR'S OPTION, STAINLESS STEEL BOLTS, NUTS AND WASHERS MAY BE USED AS AN ALTERNATE FOR THE 1/8" Ø GALVANIZED BOLTS, NUTS AND WASHERS. THEY SHALL CONFORM TO OR EXCEED THE MECHANICAL REQUIREMENTS OF ASTM A307. THE USE OF THIS ALTERNATE SHALL BE APPROVED BY THE ENGINEER.

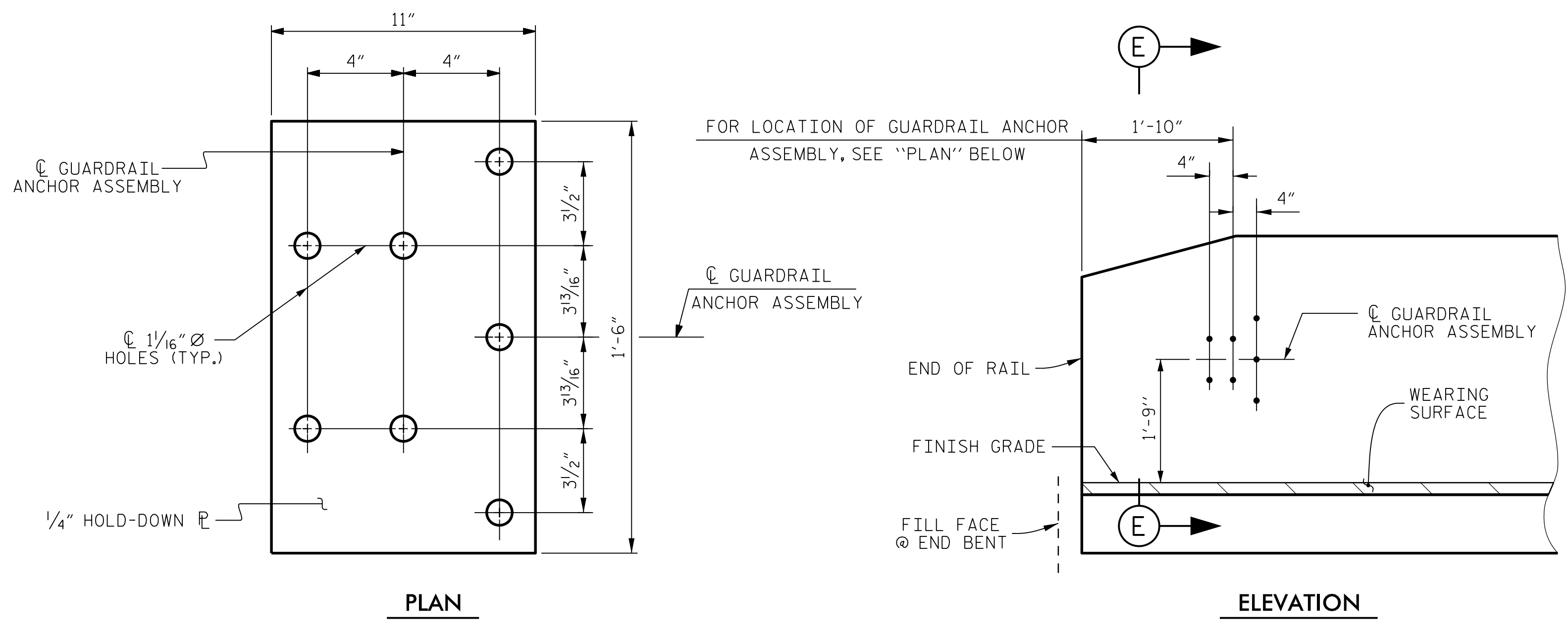
THE GUARDRAIL ANCHOR ASSEMBLY IS REQUIRED AT ALL POINTS WHERE APPROACH GUARDRAIL IS TO BE ATTACHED TO THE END OF BARRIER RAIL. FOR POINTS OF ATTACHMENT, SEE SKETCH.

AFTER INSTALLATION, THE EXPOSED THREAD OF THE BOLT SHALL BE BURRED WITH A SHARP POINTED TOOL.

THE COST OF THE GUARDRAIL ANCHOR ASSEMBLY SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE BID FOR VERTICAL CONCRETE BARRIER RAIL.

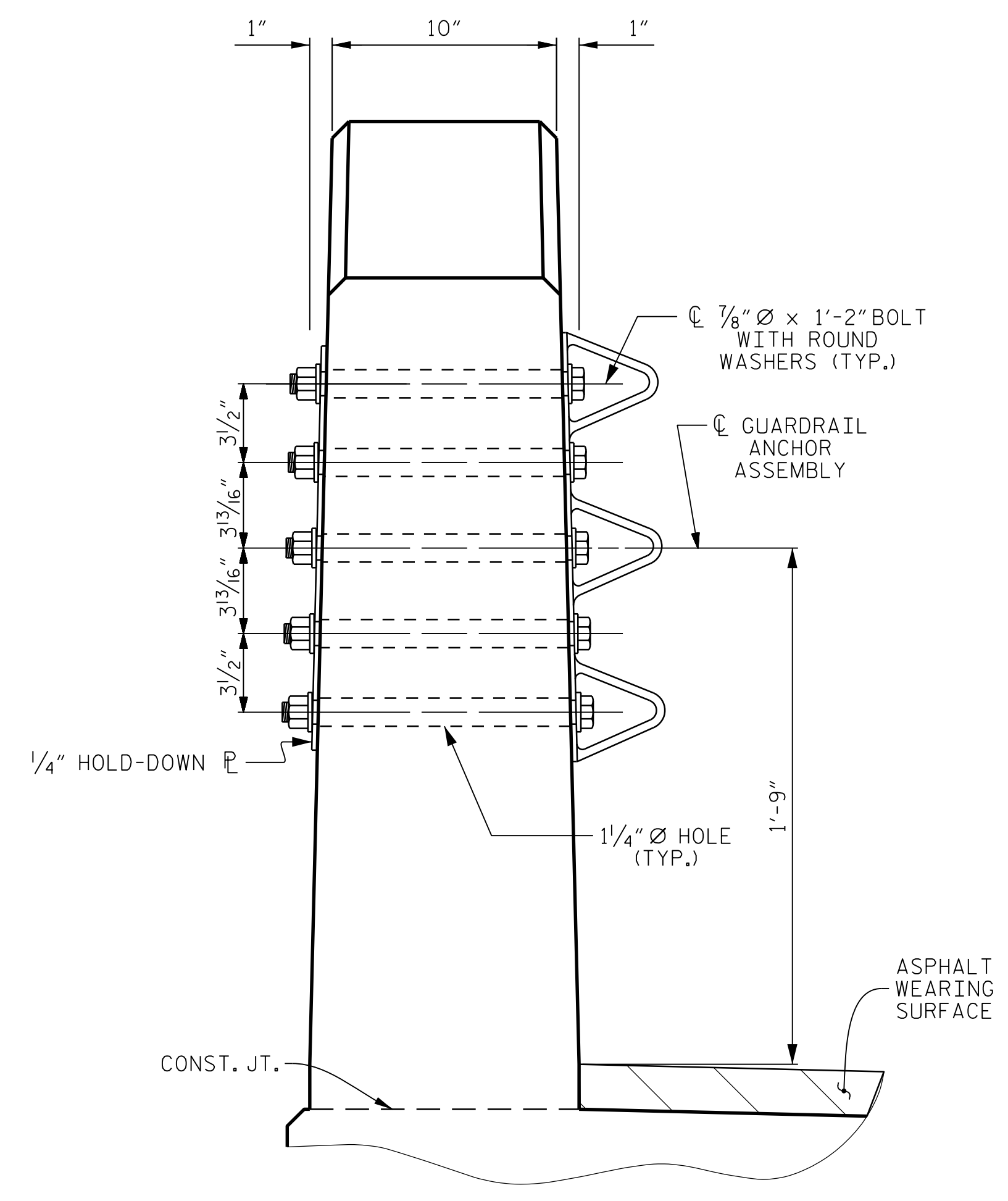
THE VERTICAL REINFORCING BARS MAY BE SHIFTED SLIGHTLY IN THE VERTICAL CONCRETE BARRIER RAIL TO CLEAR ASSEMBLY BOLTS.

THE 1 1/4" Ø HOLES SHALL BE FORMED OR DRILLED WITH A CORE BIT. IMPACT TOOLS WILL NOT BE PERMITTED. ANY CONCRETE DAMAGED BY THIS WORK SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER.

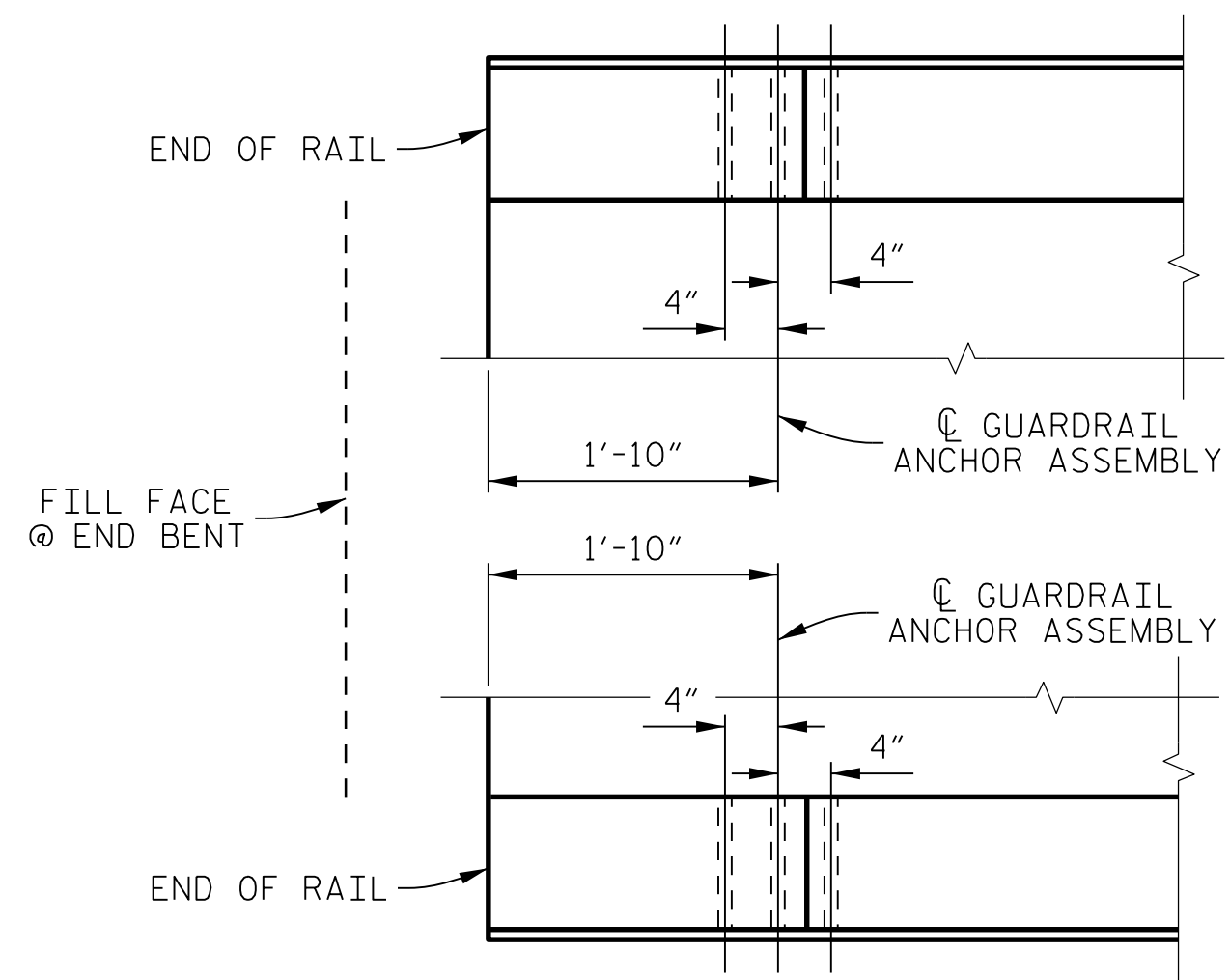


**PLAN**

**ELEVATION**



**SECTION E-E**  
**GUARDRAIL ANCHOR ASSEMBLY DETAILS**



**PLAN**  
**LOCATION OF ANCHORS FOR GUARDRAIL**  
END BENT 1 SHOWN, END BENT 2 SIMILAR.



**SKETCH SHOWING POINTS OF ATTACHMENT**  
\* LOCATION OF GUARDRAIL ATTACHMENT

PROJECT NO. **BR-0063**  
**ANSON** COUNTY  
 STATION: **20+15.00 -L-**

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH  
**STANDARD**  
**GUARDRAIL ANCHORAGE**  
**DETAILS FOR VERTICAL**  
**CONCRETE BARRIER RAIL**

DOCUMENT NOT CONSIDERED FINAL  
 UNLESS ALL SIGNATURES COMPLETED

**NORTH CAROLINA**  
**PROFESSIONAL**  
**ENGINEER**  
**SEAL**  
**046289**  
**G. N. P. HOOVER**

10/2/2024

PLANS PREPARED BY:  
**ARCADIS**  
 5420 WADE PARK BLVD, SUITE 350  
 RALEIGH, NORTH CAROLINA 27607  
 NC LICENSE No. 0486277

DRAWN BY: **K. E. LOFTON** DATE: **6-22**  
 CHECKED BY: **G. P. HOOVER** DATE: **9-23**  
 DESIGN ENGINEER: **S. K. CHRISTOPH** DATE: **9-23**

REVISIONS						SHEET No.
No.	BY:	DATE:	No.	BY:	DATE:	S-10
1			3			TOTAL SHEETS
2			4			19

FILE: c:\pwwork\arcadis\p01\ginc\hoover\dms89249\BR-0063\_Div-10\_0030087\_sml\_grl.dgn  
 DATE: 9/2/2024 10:04:31 AM