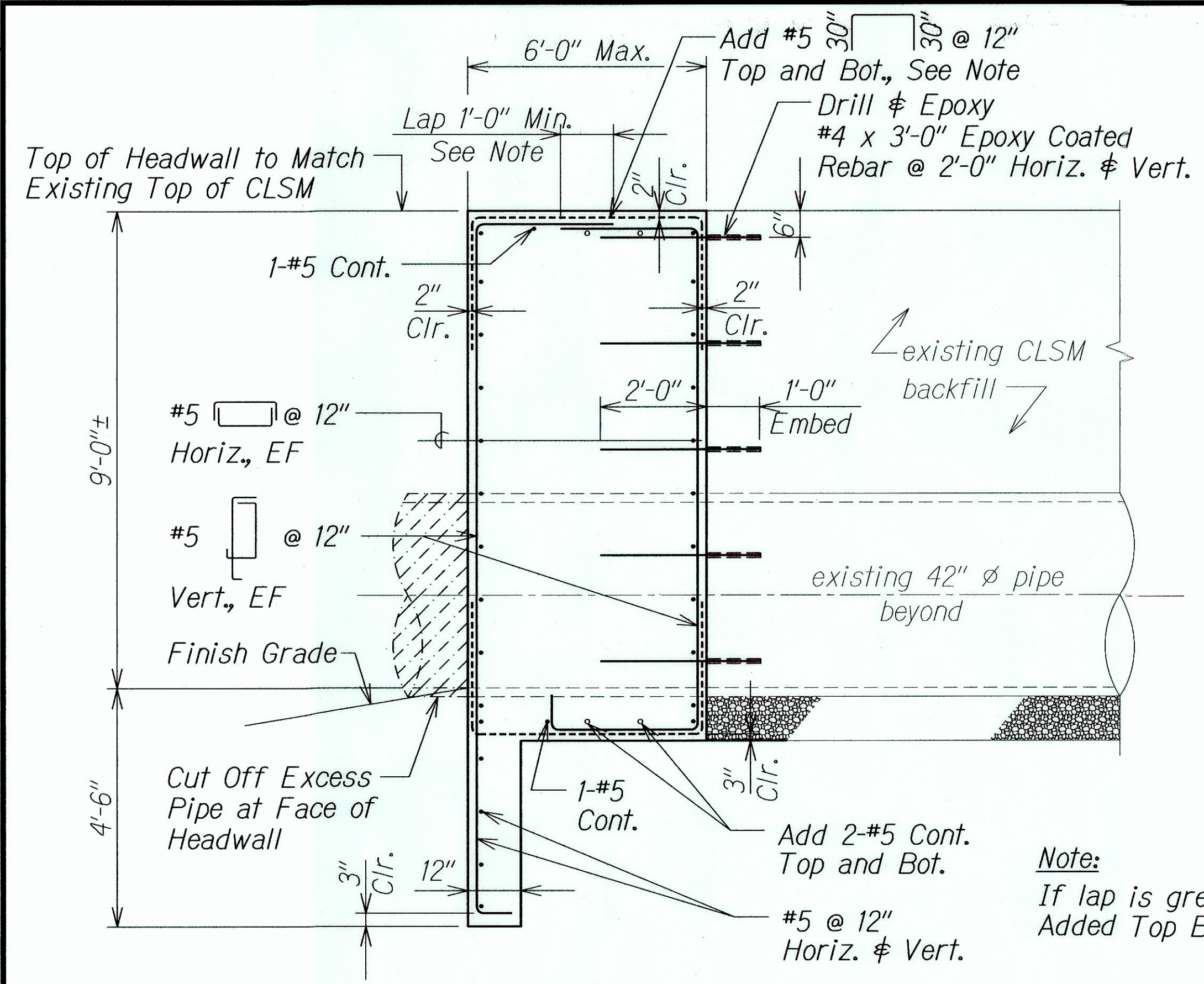
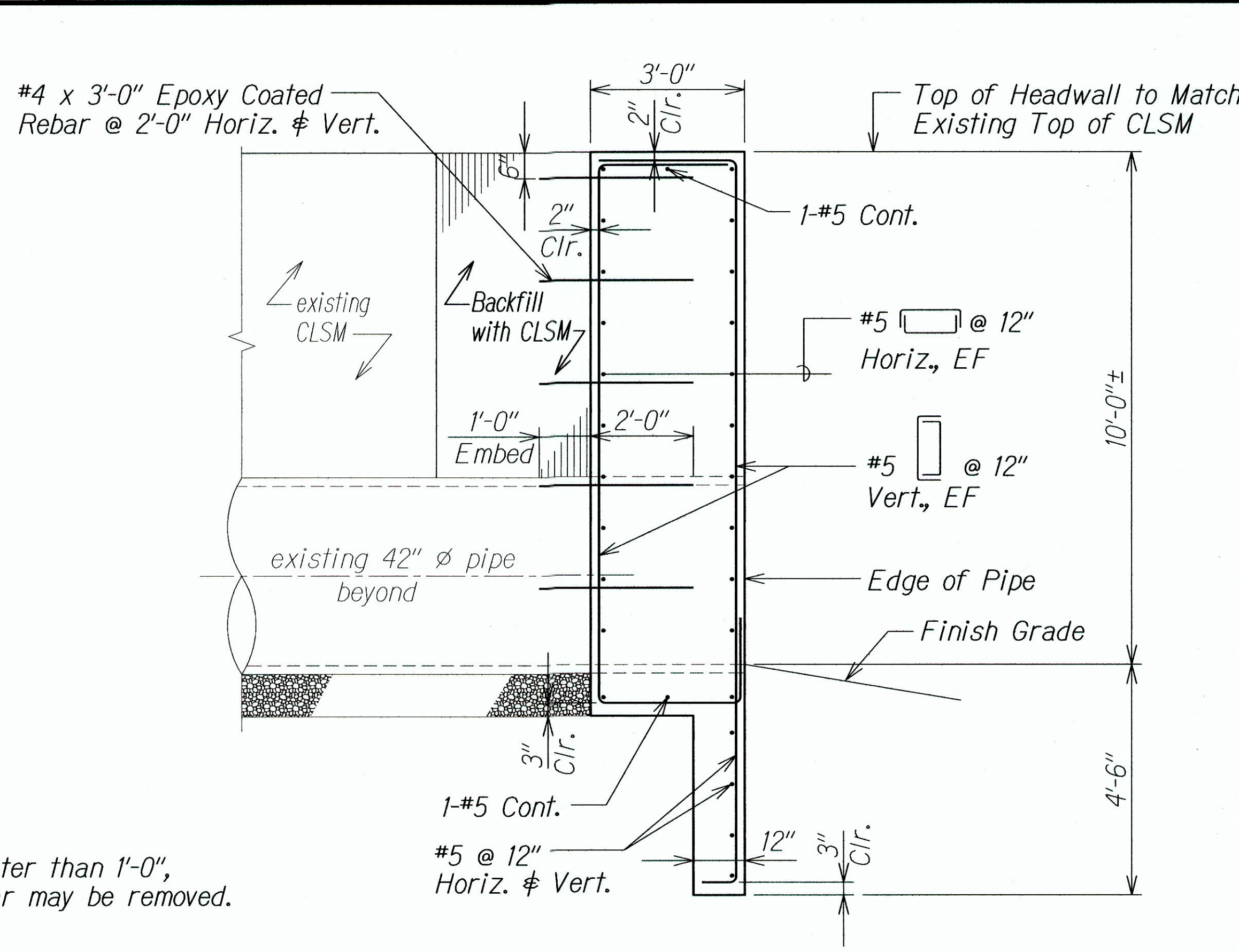


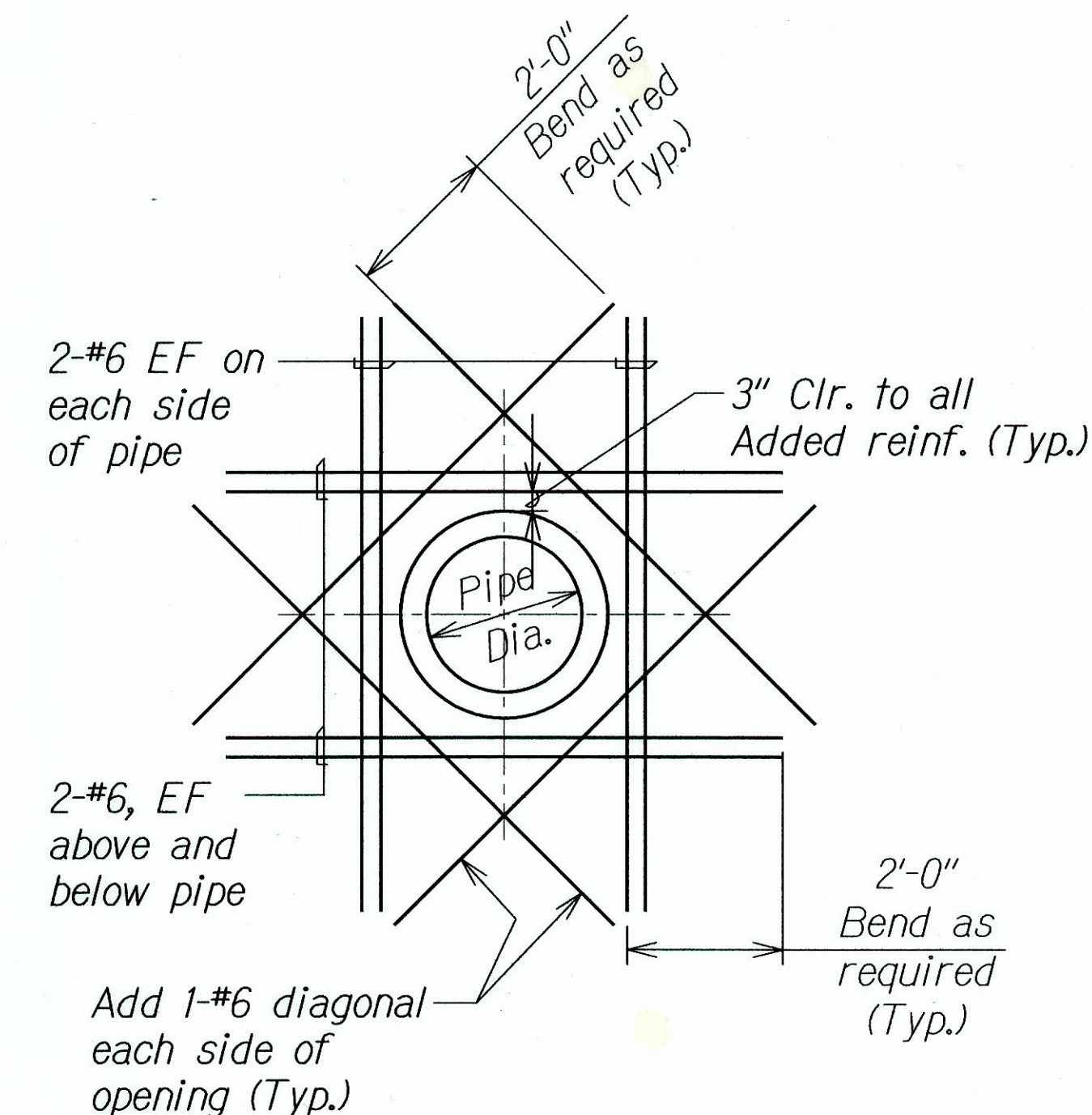
| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | 5600-01-12         | 2012        | 3         | 3            |



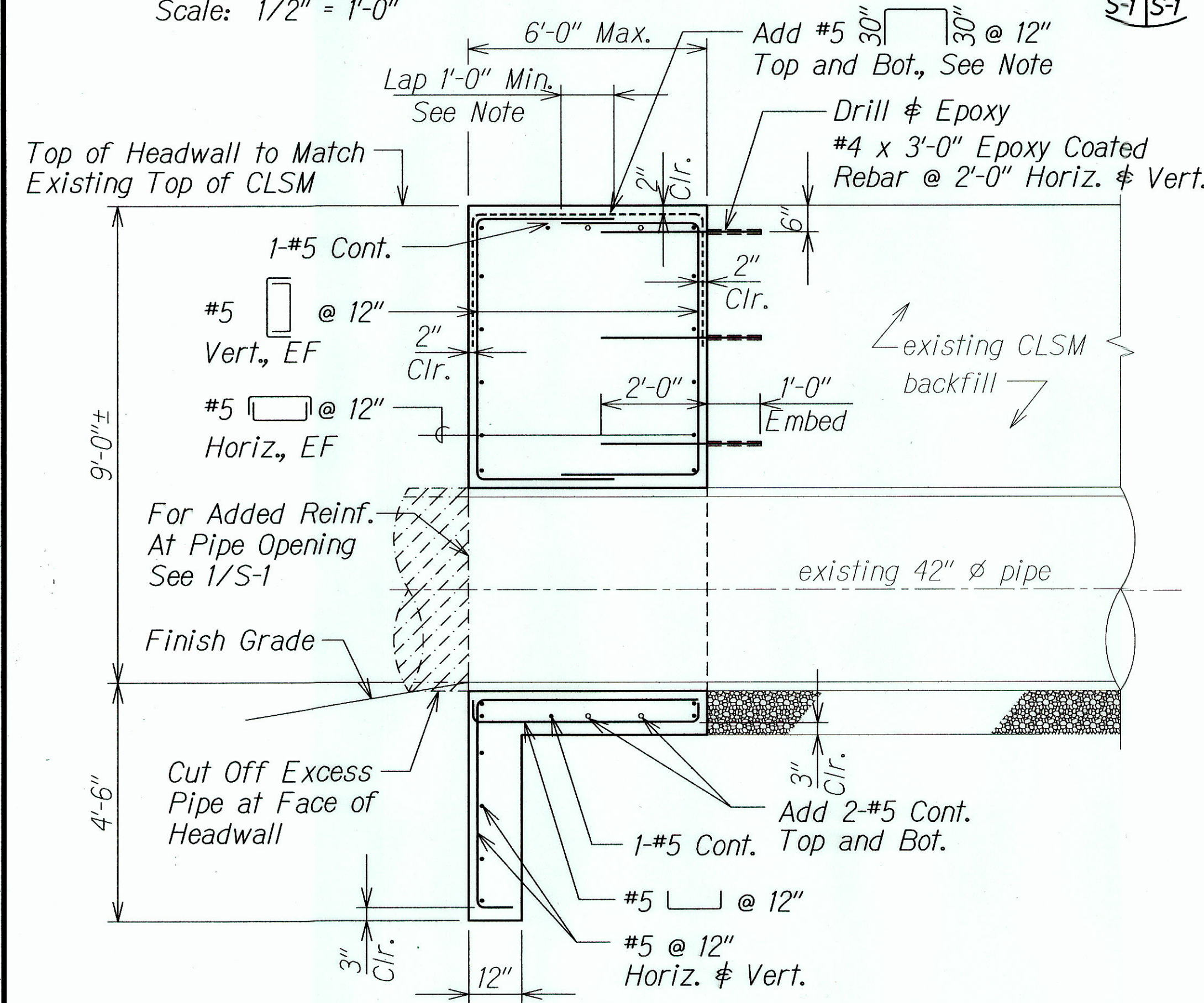
**TYPICAL UPSTREAM HEADWALL SECTION A**  
Scale: 1/2" = 1'-0"



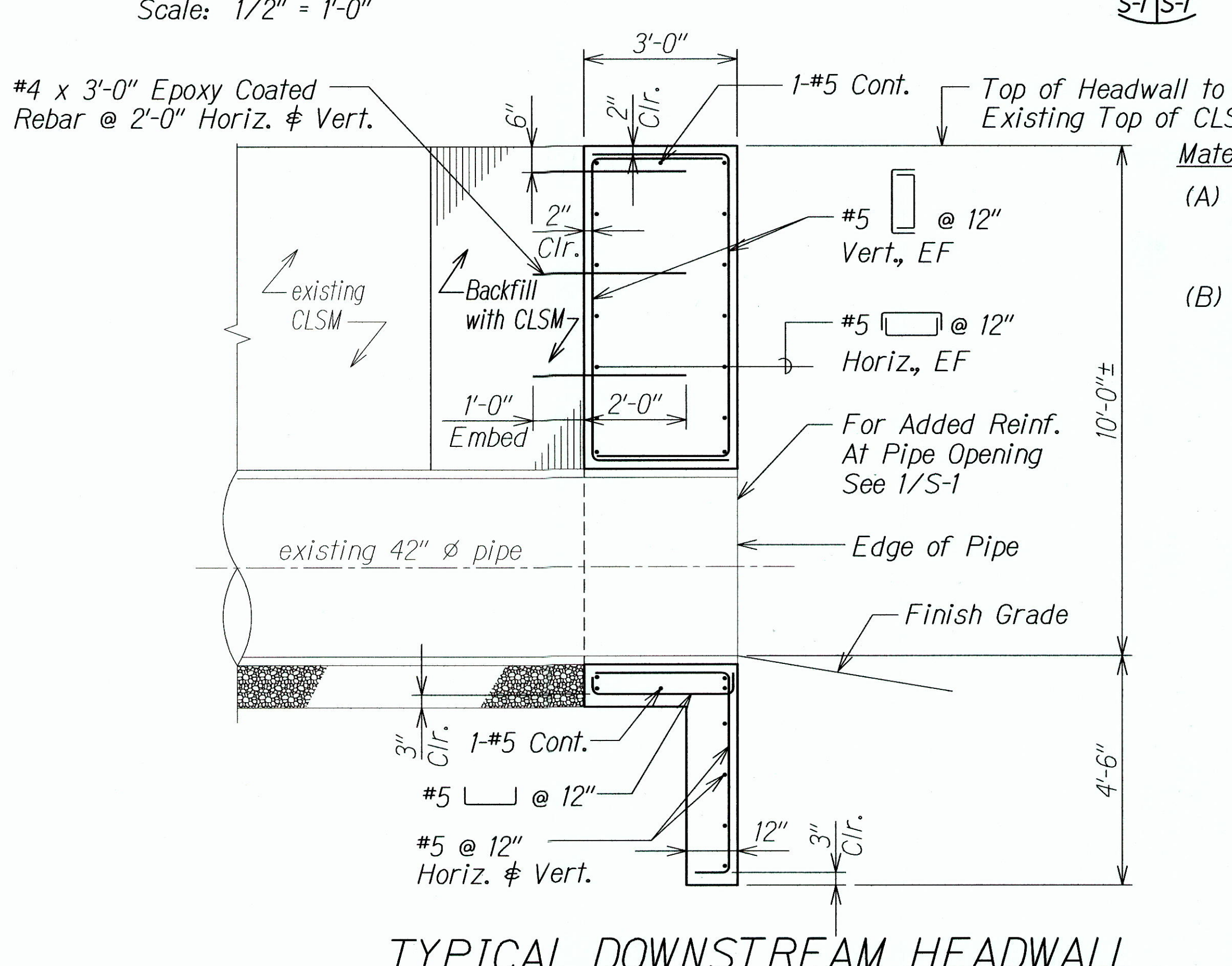
**TYPICAL DOWNSTREAM HEADWALL SECTION B**  
Scale: 1/2" = 1'-0"



**ADDED REINFORCING AT PIPE OPENING 1**  
Scale: 1/2" = 1'-0"



**TYP. UPSTREAM HEADWALL AT EXIST. PIPE - SECTION C**  
Scale: 1/2" = 1'-0"



**TYPICAL DOWNSTREAM HEADWALL AT EXIST. PIPE - SECTION D**  
Scale: 1/2" = 1'-0"

**Material Notes:**  
(A) All concrete strengths shall develop a minimum 28-day Compressive Strength of 4,000 psi and have a maximum 0.45 Water to Cement Ratio.  
(B) All reinforcing steel shall be ASTM A615 Grade 60 unless otherwise noted.

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**HEADWALL SECTIONS**  
  
TEMPORARY KAPAA BYPASS EMERGENCY  
DRAINAGE REPAIR, VICINITY OF M.P. 1.2  
Project No. 5600-01-12  
Scale: As Shown Date: March 15, 2012  
SHEET No. S-1 OF 1 SHEETS

"AS-BUILT"