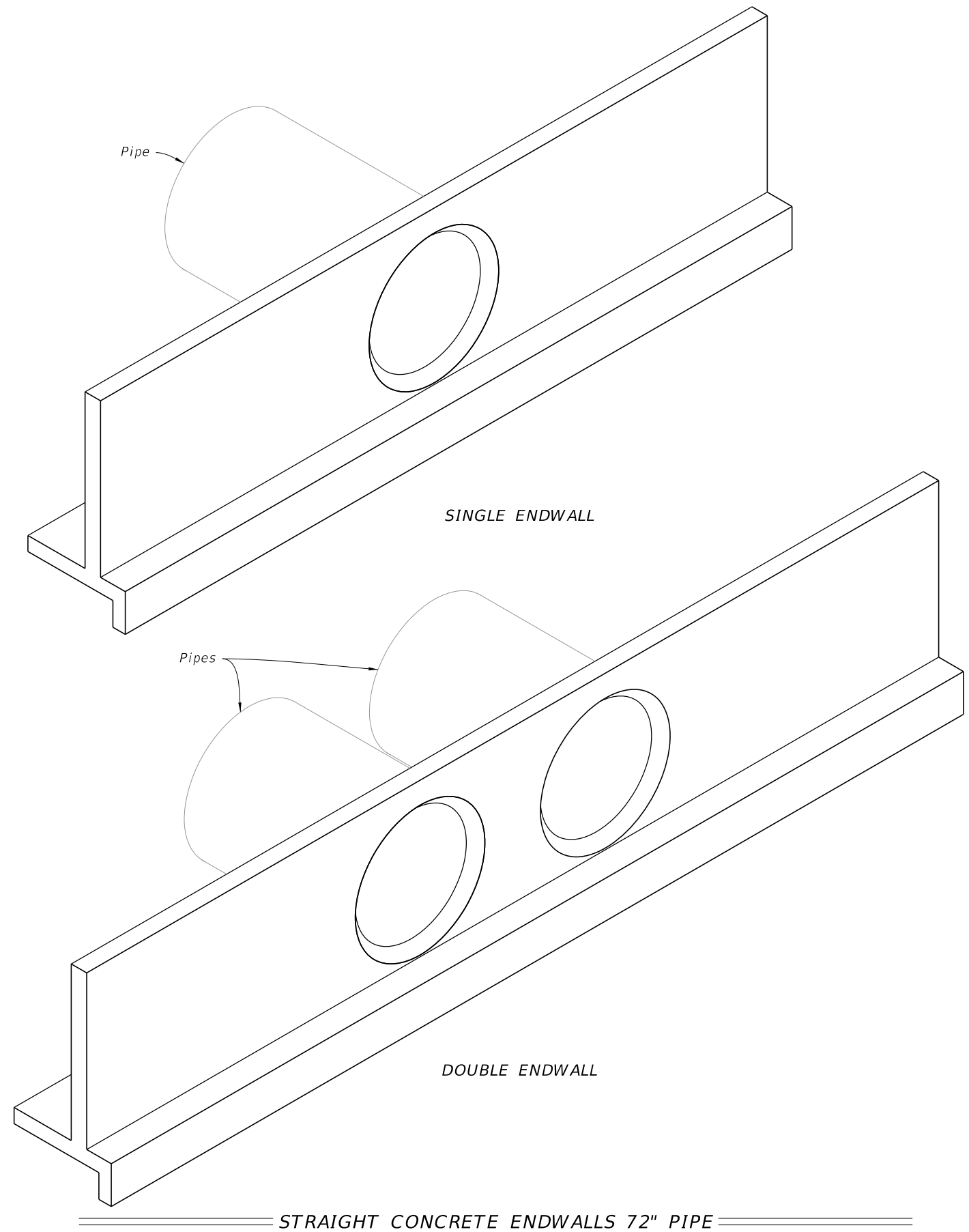


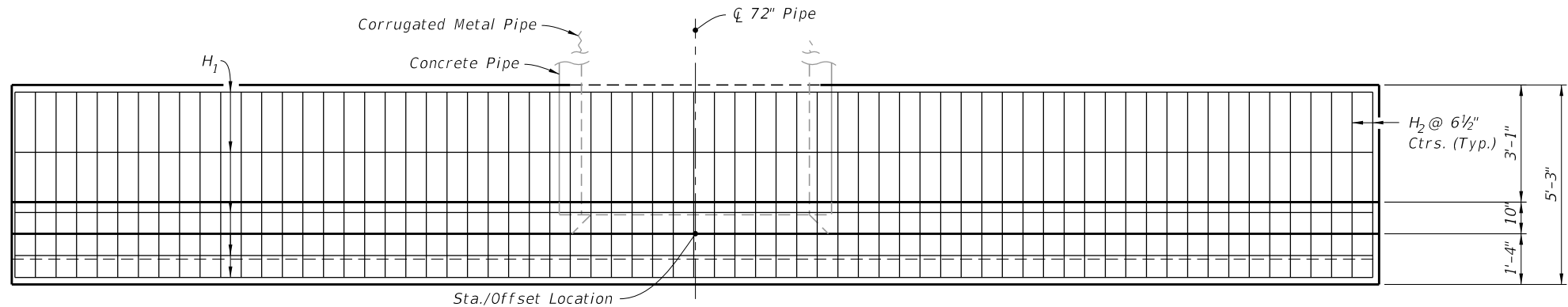
**GENERAL NOTES:**

1. Use Class II concrete.
2. Reinforcing steel is either Grade 40 or 60.
3. Endwalls may be cast in place or precast concrete. The Contractor or the Supplier will determine the additional reinforcement necessary for handling precast units.
4. Chamfer all exposed edges and corners  $\frac{3}{4}$ " unless otherwise shown.
5. Quantities shown are for estimating purposes only.

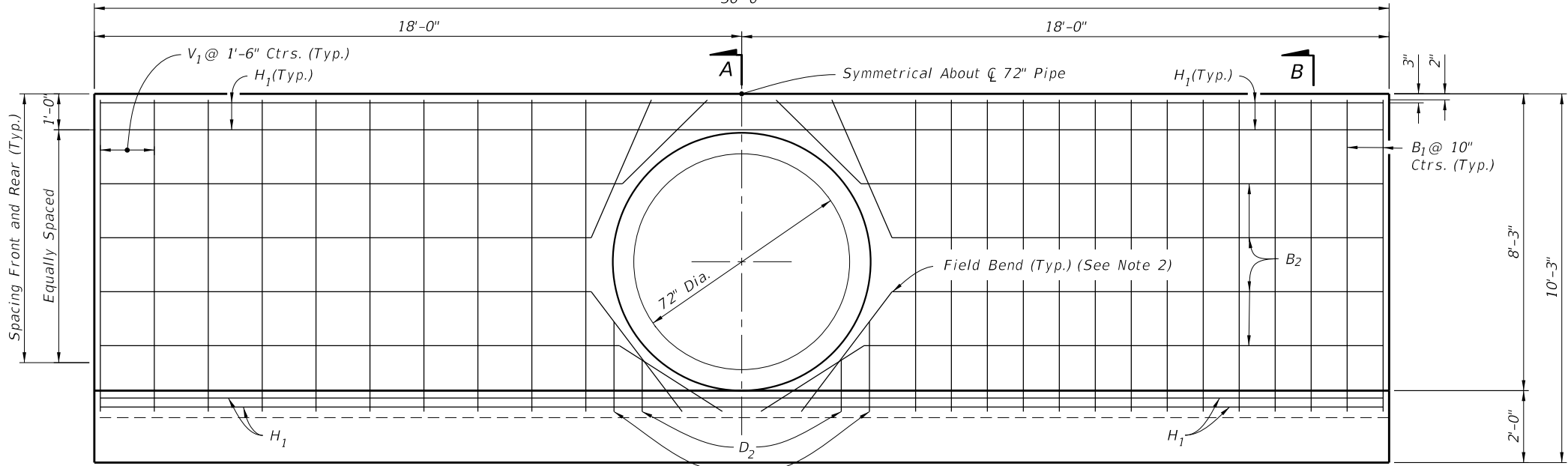
TABLE OF CONTENTS:	
Sheet	Description
1	General Notes and Contents
2	Single 72" Pipe Endwall Details
3	Double 72" Pipe Endwall Details



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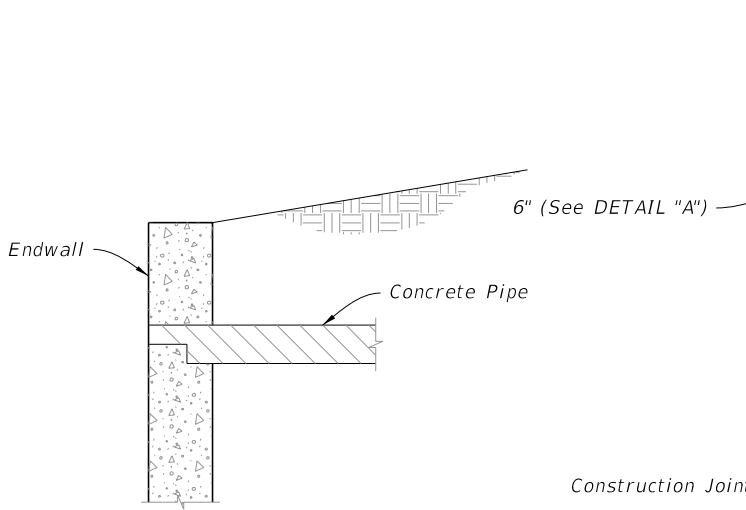


**PLAN**  
(Showing Bars In Footing)  
36'-0"

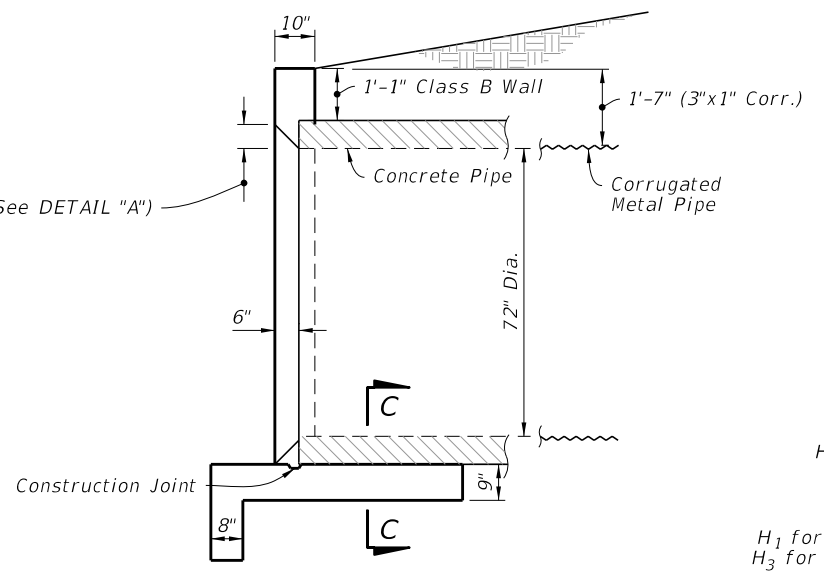


**HALF ELEVATION**  
(Showing Bars in Front Face of Wall)

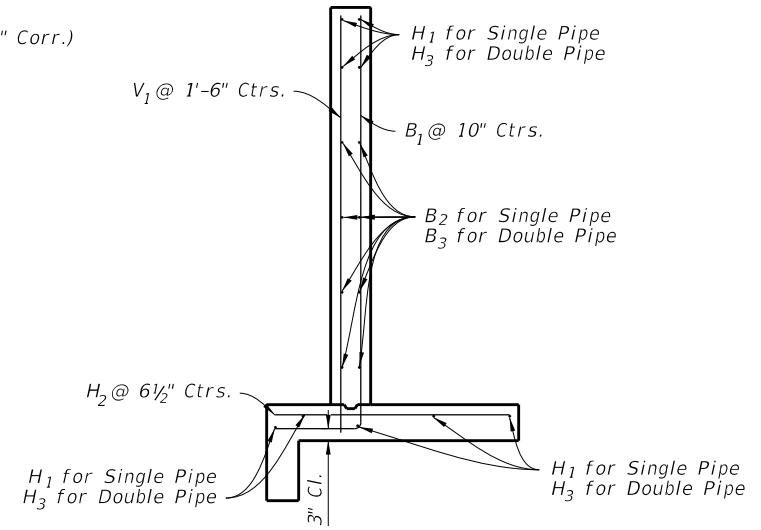
**HALF ELEVATION**  
(Showing Bars in Back Face of Wall)



**DETAIL "A"**  
(Concrete Pipe Optional Entrance)



**SECTION A-A**  
(Rebar Not Shown)



**SECTION B-B**  
(Typical Section)

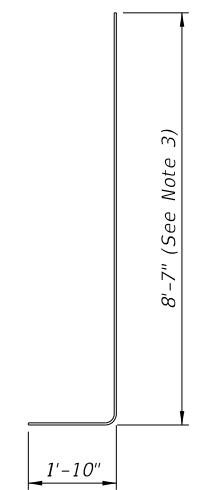
- NOTES:**
- 2" clearance on all reinforcement, unless otherwise shown.
  - Cut and bend B<sub>2</sub> Bars as shown.
  - All bar dimensions are out to out.

- LEGEND:**
- H = Horizontal Bars    B = Bent Bars  
V = Vertical Bars      D = Dowels or Diagonal Bars

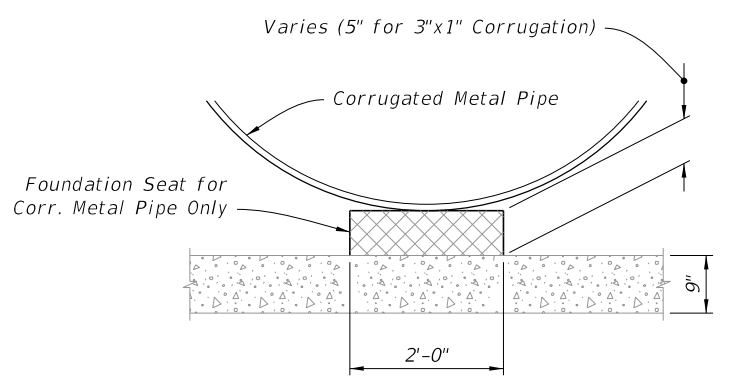
SINGLE 72" PIPE ENDWALL ESTIMATED QUANTITIES			
ITEM	UNIT	RCP	CMP
Class II Concrete	Cu. Yd.	14.4	14.5
Reinforcing Steel	Lb.	1249	1249

BILL OF REINFORCING STEEL			
MARK	SIZE	NO. REQD.	LENGTH
H <sub>1</sub>	4	9	35'-8"
H <sub>2</sub>	5	68	4'-11"
V <sub>1</sub>	4	20	8'-7"
B <sub>1</sub>	5	34	10'-5"
B <sub>2</sub>	4	8	35'-8"
D <sub>1</sub>	4	4	2'-6"
D <sub>2</sub>	4	4	1'-6"



**BAR B<sub>1</sub>**  
**BENDING DIAGRAM**



**SECTION C-C**

**SINGLE 72" PIPE ENDWALL DETAILS**

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LAST REVISION 11/01/19	DESCRIPTION:	 FY 2020-21 STANDARD PLANS	<b>STRAIGHT CONCRETE ENDWALLS</b> <b>SINGLE AND DOUBLE 72" PIPE</b>	INDEX 430-033	SHEET 2 of 3
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**DOUBLE 72" PIPE ENDWALL  
ESTIMATED QUANTITIES**

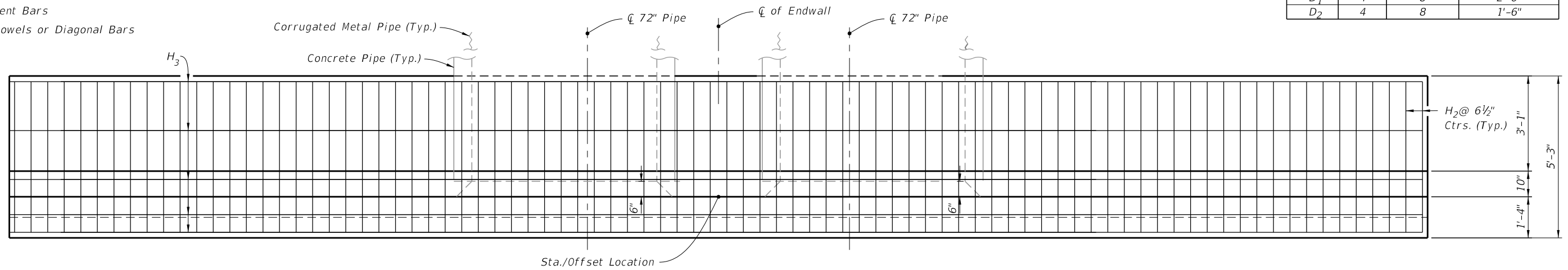
ITEM	UNIT	RCP	CMP
Class II Concrete	Cu. Yd.	17.5	17.8
Reinforcing Steel	Lb.	1519	1519

**BILL OF REINFORCING STEEL**

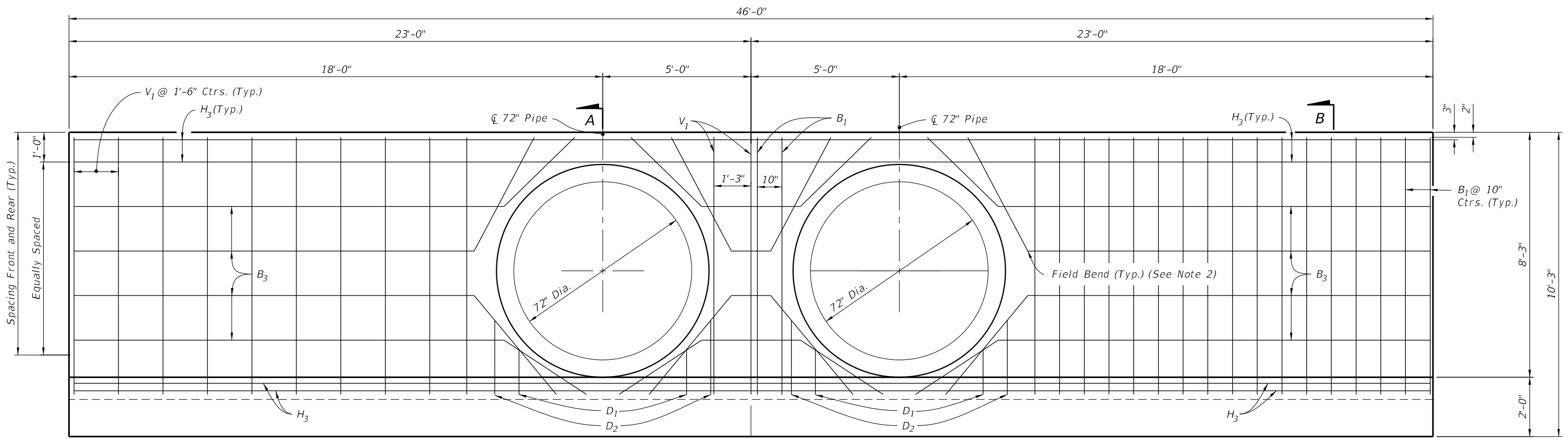
MARK	SIZE	NO. REQD.	LENGTH
H <sub>2</sub>	5	85	4'-11"
H <sub>3</sub>	4	9	45'-8"
V <sub>1</sub>	4	23	8'-7"
B <sub>1</sub>	5	38	10'-5"
B <sub>3</sub>	4	8	45'-8"
D <sub>1</sub>	4	8	2'-6"
D <sub>2</sub>	4	8	1'-6"

- NOTES:**
- 2" clearance on all reinforcement, unless otherwise shown.
  - Cut and bend B<sub>3</sub> Bars as shown.
  - All bar dimensions are out to out.

**LEGEND:**  
H = Horizontal Bars  
V = Vertical Bars  
B = Bent Bars  
D = Dowels or Diagonal Bars



**PLAN**  
(Showing Bars In Footing)



**HALF ELEVATION**  
(Showing Bars in Front Face of Wall)

**HALF ELEVATION**  
(Showing Bars in Back Face of Wall)

**DOUBLE 72" PIPE ENDWALL DETAILS**

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LAST REVISION 11/01/19	DESCRIPTION:	 <b>FY 2020-21 STANDARD PLANS</b>	<b>STRAIGHT CONCRETE ENDWALLS SINGLE AND DOUBLE 72" PIPE</b>	INDEX 430-033	SHEET 3 of 3
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