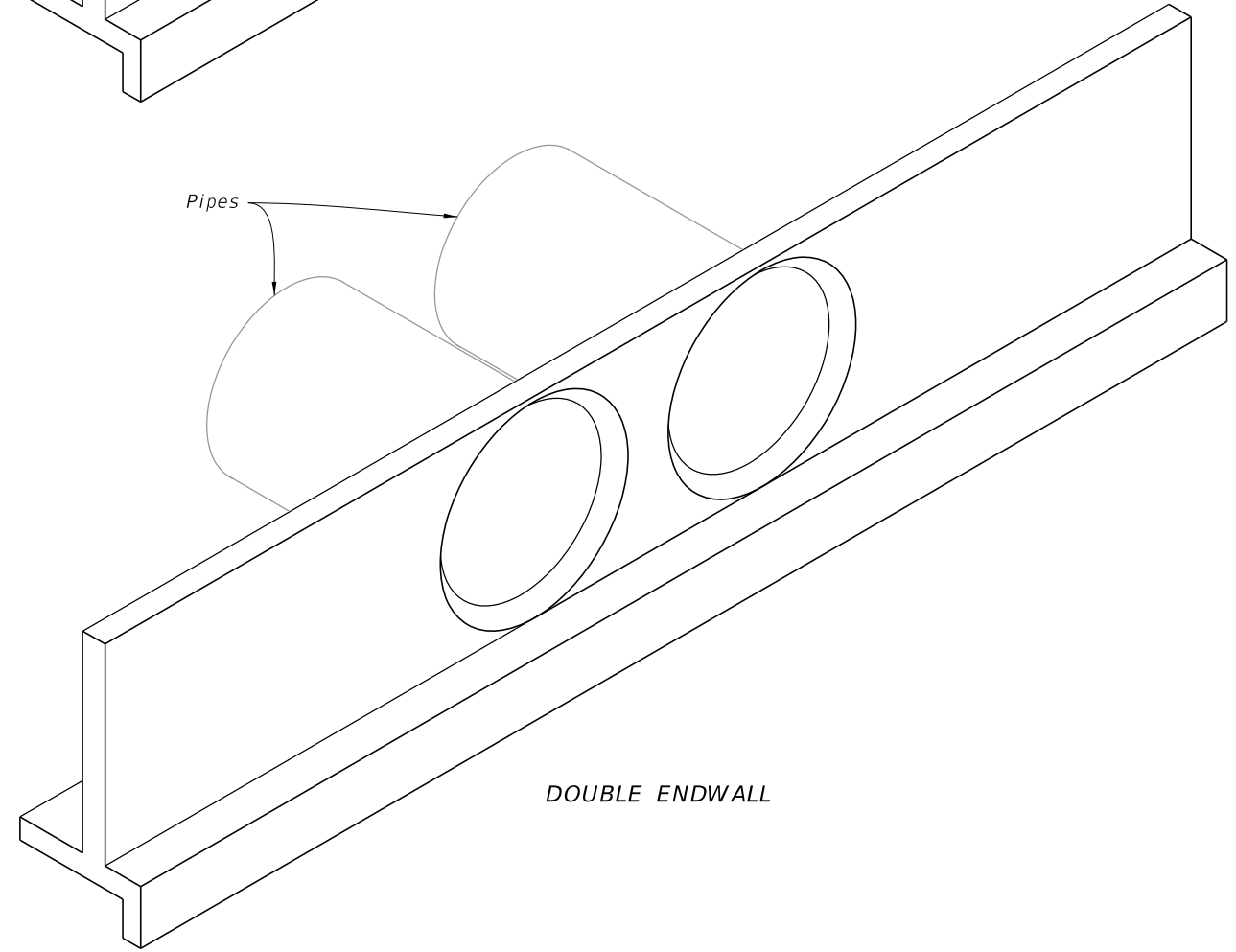
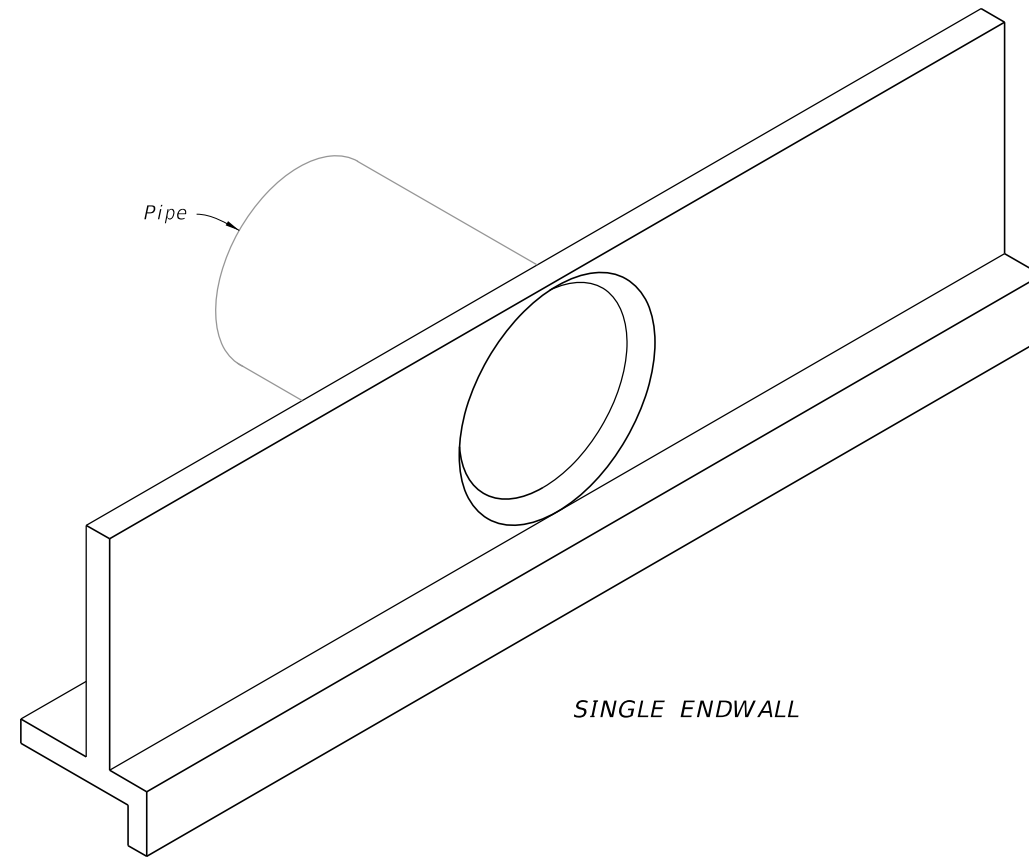


GENERAL NOTES:

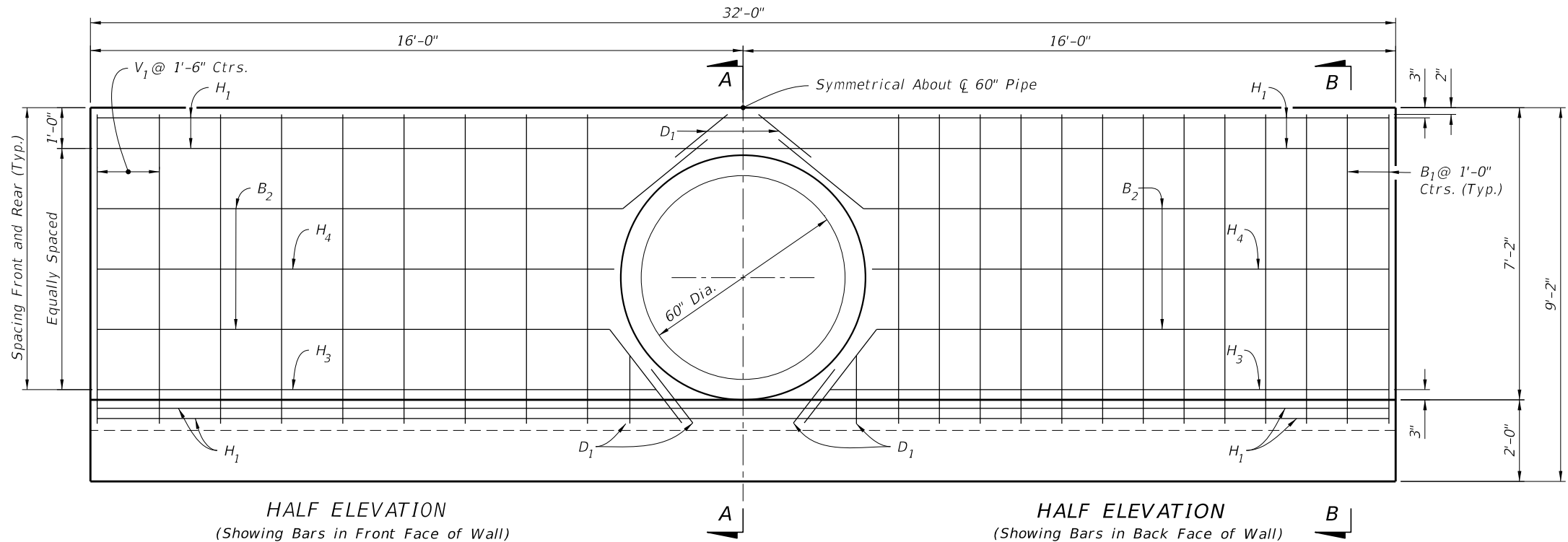
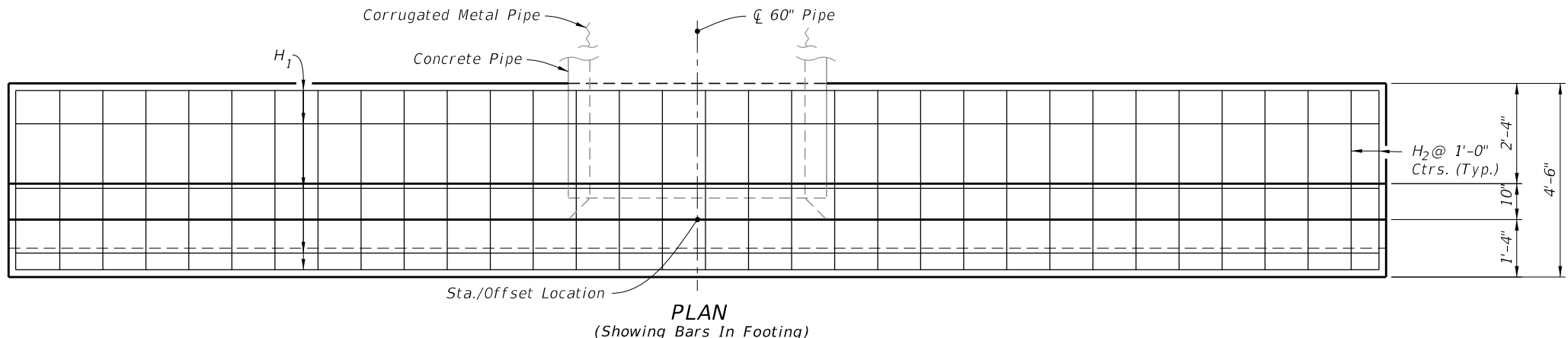
1. Use Class II concrete.
2. Reinforcing steel is either Grade 40 or 60.
3. Endwalls may be cast in place or precast concrete. The Contractor or the Supplier will determine the additional reinforcement necessary for handling precast units.
4. Chamfer all exposed edges and corners $\frac{3}{4}$ " unless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

| TABLE OF CONTENTS: | |
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| Sheet | Description |
| 1 | General Notes and Contents |
| 2 | Single 60" Pipe Endwall Details |
| 3 | Double 60" Pipe Endwall Details |



STRAIGHT CONCRETE ENDWALLS 60" PIPE

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NOTES:

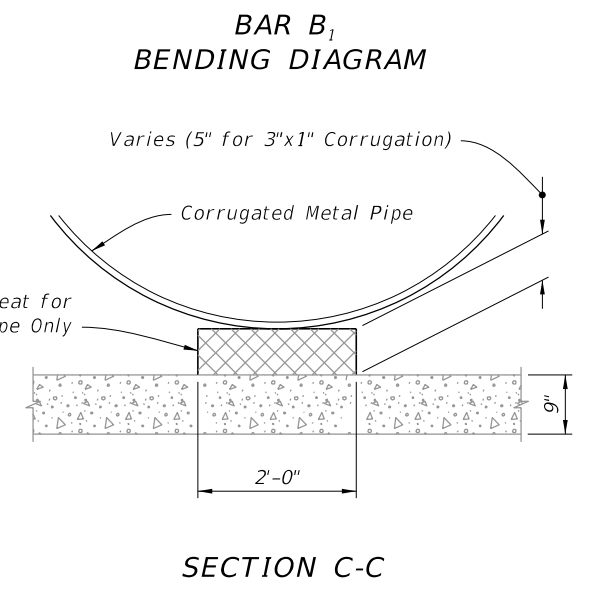
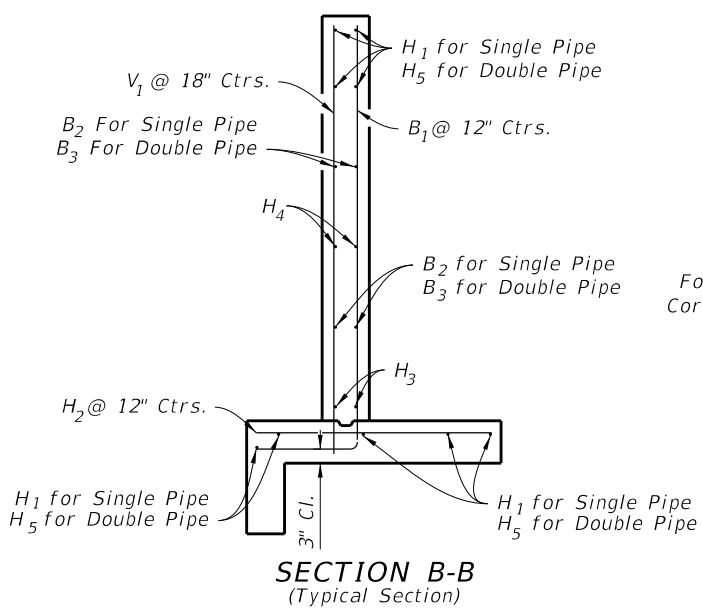
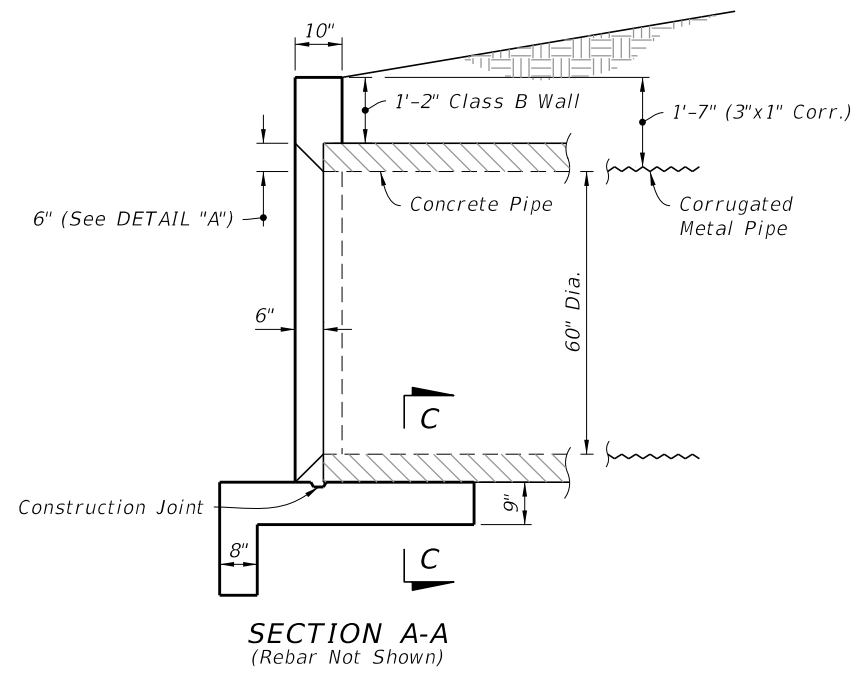
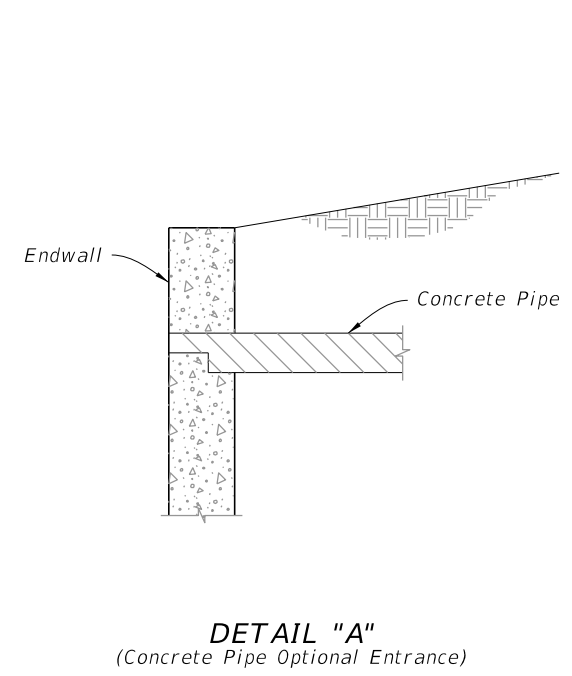
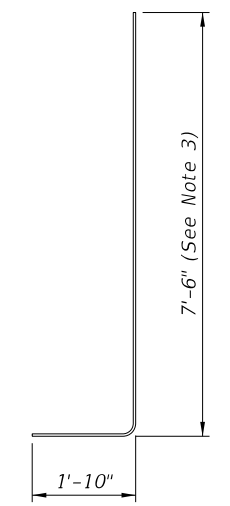
- 2" clearance on all reinforcement, unless otherwise shown.
- Cut and bend B₂ and B₃ Bars as shown.
- All bar dimensions are out to out.

LEGEND:

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

| SINGLE 60" PIPE ESTIMATED QUANTITIES | | | |
|--------------------------------------|---------|------|------|
| ITEM | UNIT | RCP | CMP |
| Class II Concrete | Cu. Yd. | 11.3 | 11.4 |
| Reinforcing Steel | Lb. | 695 | 695 |

| BILL OF REINFORCING STEEL | | | |
|---------------------------|------|-----------|--------|
| MARK | SIZE | NO. REQD. | LENGTH |
| H ₁ | 4 | 9 | 31'-8" |
| H ₂ | 4 | 32 | 4'-2" |
| H ₃ | 4 | 4 | 13'-9" |
| H ₄ | 4 | 4 | 12'-4" |
| V ₁ | 4 | 18 | 7'-6" |
| B ₁ | 4 | 26 | 9'-4" |
| B ₂ | 4 | 4 | 31'-8" |
| D ₁ | 4 | 8 | 1'-8" |



SINGLE 60" PIPE ENDWALL DETAILS

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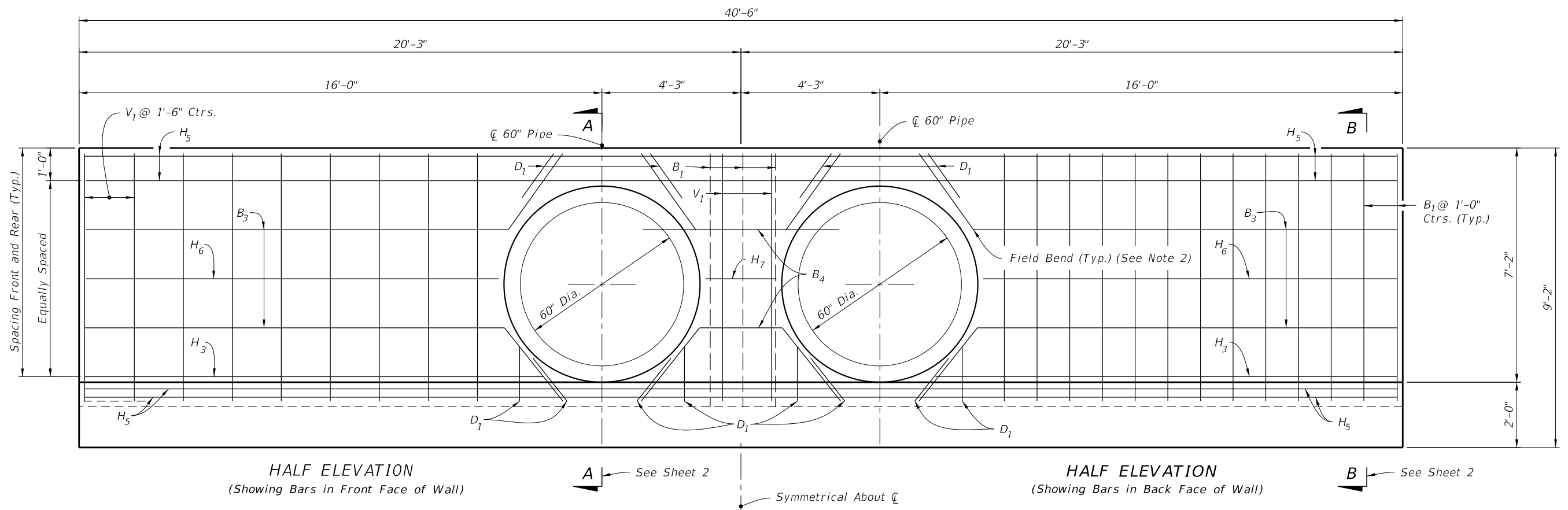
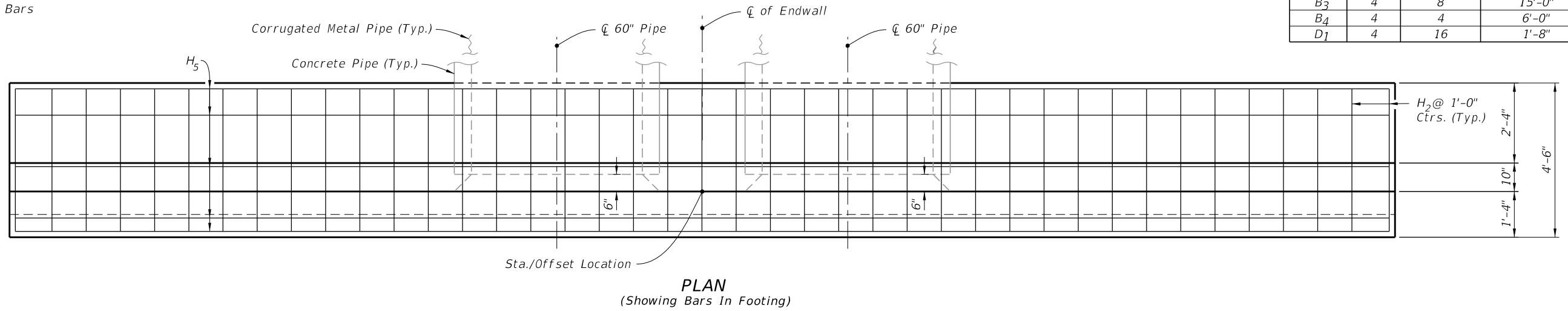
NOTES:

- 2" clearance on all reinforcement, unless otherwise shown.
- Cut and bend B₃ 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

| DOUBLE 60" PIPE ESTIMATED QUANTITIES | | | |
|--------------------------------------|---------|-----------|--------|
| ITEM | UNIT | RCP | CMP |
| Class II Concrete | Cu. Yd. | 13.7 | 13.8 |
| Reinforcing Steel | Lb. | 824 | 824 |
| BILL OF REINFORCING STEEL | | | |
| MARK | SIZE | NO. REQD. | LENGTH |
| H ₂ | 4 | 41 | 4'-2" |
| H ₃ | 4 | 4 | 13'-9" |
| H ₅ | 4 | 9 | 40'-2" |
| H ₆ | 4 | 4 | 12'-6" |
| H ₇ | 4 | 2 | 2'-2" |
| V ₁ | 4 | 20 | 7'-6" |
| B ₁ | 4 | 29 | 9'-4" |
| B ₃ | 4 | 8 | 15'-0" |
| B ₄ | 4 | 4 | 6'-0" |
| D ₁ | 4 | 16 | 1'-8" |



DOUBLE 60" PIPE ENDWALL DETAILS

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| | | | | | |
|---------------------------|--------------|--|--|------------------|-----------------|
| LAST REVISION 11/01/19 | DESCRIPTION: |  FY 2023-24 STANDARD PLANS | STRAIGHT CONCRETE ENDWALLS SINGLE AND DOUBLE 60" PIPE | INDEX 430-031 | SHEET 3 of 3 |
|---------------------------|--------------|--|--|------------------|-----------------|