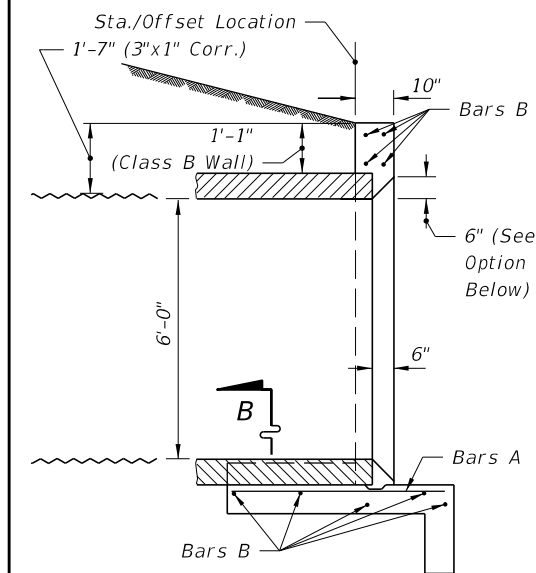
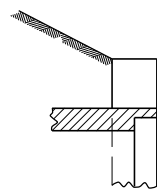


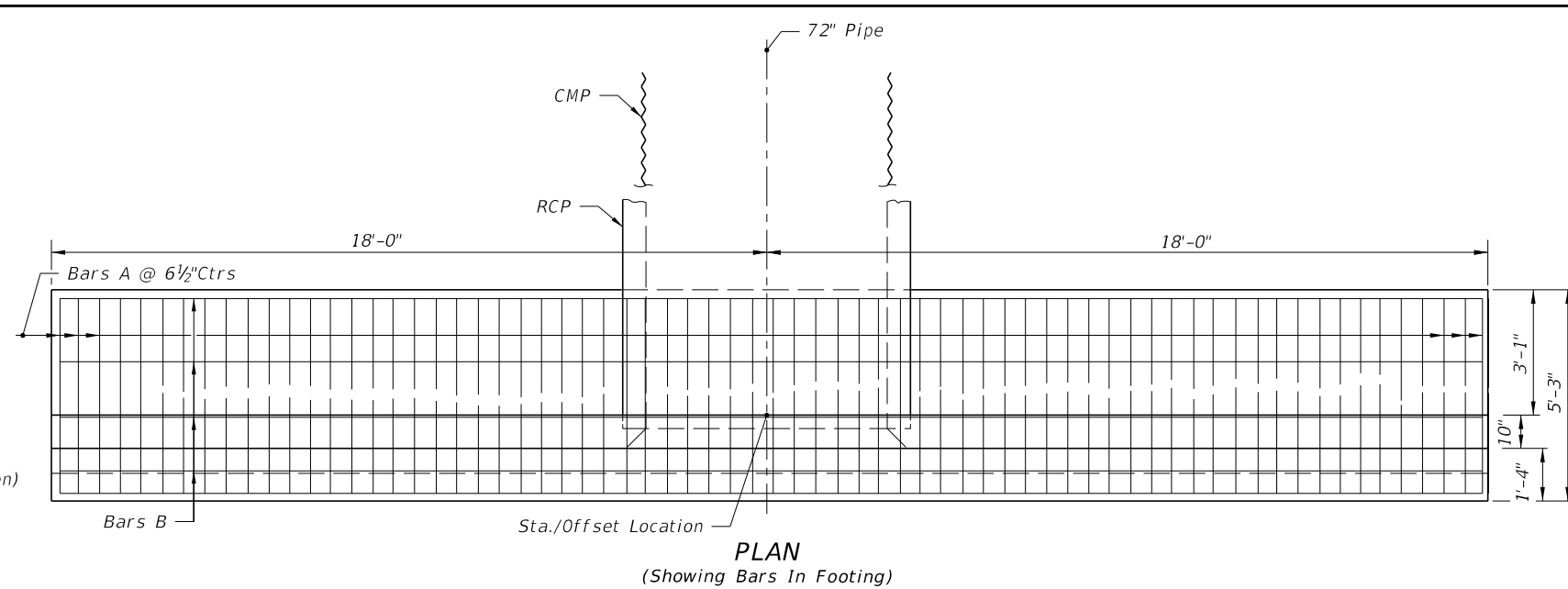
SECTION BB



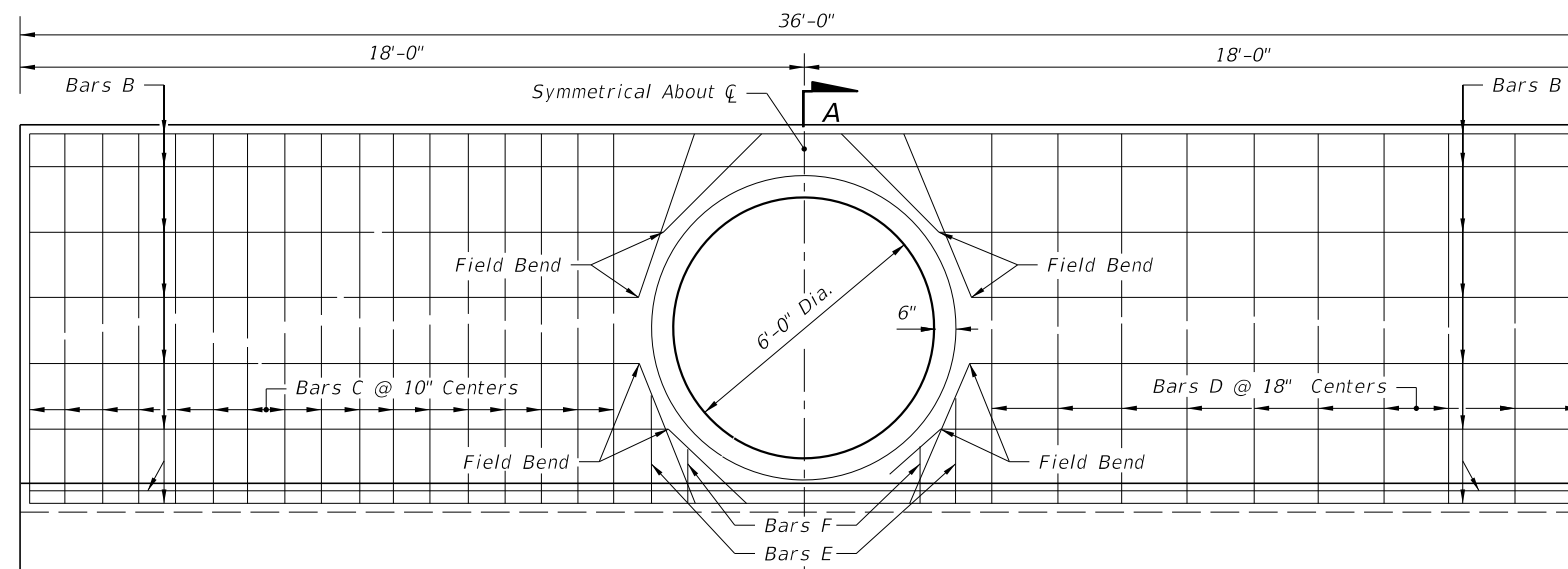
SECTION AA



OPTIONAL ENTRANCE FOR CONCRETE PIPE



PLAN (Showing Bars In Footing)



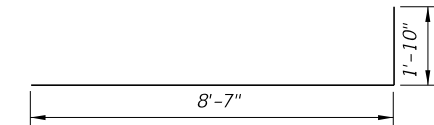
HALF ELEVATION (Showing Bars In Back Face Of Wall)

HALF ELEVATION (Showing Bars In Front Face Of Wall)

NOTE: Cut and Field Bend Bars B As Shown

| BILL OF REINFORCING STEEL | | | | | |
|---------------------------|------|-----------|--------|----------------|----------|
| MARK | SIZE | NO. REQD. | LENGTH | LOCATION | BENDING |
| A | 5 | 68 | 4'-11" | Footing | Straight |
| B | 4 | 17 | 35'-8" | Footing & Wall | Straight |
| C | 5 | 34 | 10'-5" | Wall | Bend |
| D | 4 | 20 | 8'-7" | Wall | Straight |
| E | 4 | 4 | 2'-6" | Wall | Straight |
| F | 4 | 4 | 1'-6" | Wall | Straight |

BENDING DIAGRAM

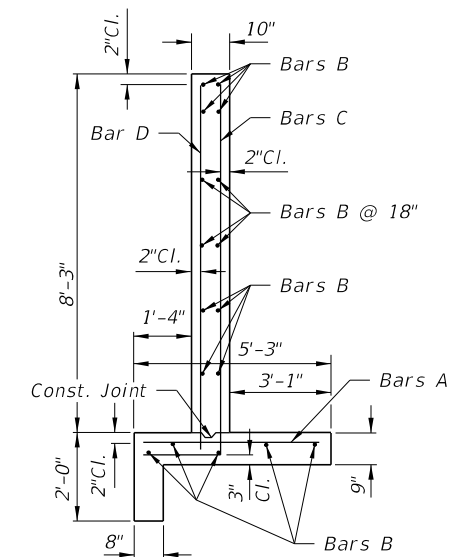


BAR C

NOTE: All bar dimensions are out to out

ESTIMATED QUANTITIES

| ITEM | UNIT | RCP | CMP |
|-------------------|---------|------|------|
| Class II Concrete | Cu. Yd. | 14.4 | 14.5 |
| Reinforcing Steel | Lb. | 1249 | 1249 |



TYPICAL SECTION THRU ENDWALL

GENERAL NOTES

1. Straight concrete endwalls are intended for use outside the clear zone.
2. Endwalls may be cast-in-place or precast construction. Cast-in-place endwalls shall conform to the details on this Index. Precast construction which adheres to this Index, including any additional reinforcement required for handling which shall be determined by the Contractor or supplier, does not require additional approvals. Deviations from this Index, for precast units, shall require the approval of the State Drainage Engineer prior to construction. For precast construction, see Index 425-001 for opening and grouting details.
3. Reinforcing steel shall be either Grade 40 or 60.
4. Concrete shall be Class II, except ASTM C478 (4000 psi) concrete may be substituted for precast items manufactured in plants meeting the requirements of Section 449 of the Specifications.
5. Chamfer: All exposed edges and corners to be chamfered 3/4" unless otherwise shown.
6. That portion of corrugated Metal pipe in direct contact with the concrete slab and extending 12" beyond shall have a continuous bituminous coating of 0.004" minimum thickness coated applied prior to placing of the concrete.
7. Sodding shall be in accordance with Index 524-001 and paid for under the contract unit price for Performance Turf, SY.
8. Basis of payment for either cast-in-place or precast construction shall be the estimated quantities tabulated on the Index. Concrete and reinforcing steel shall be paid for under the contract unit prices for Class II Concrete (Endwalls), CY and Reinforcing Steel (Roadway), LB.

10/24/2018 9:00:43 AM

| LAST REVISION | DESCRIPTION: |
|---------------|--------------|
| 11/01/17 | |

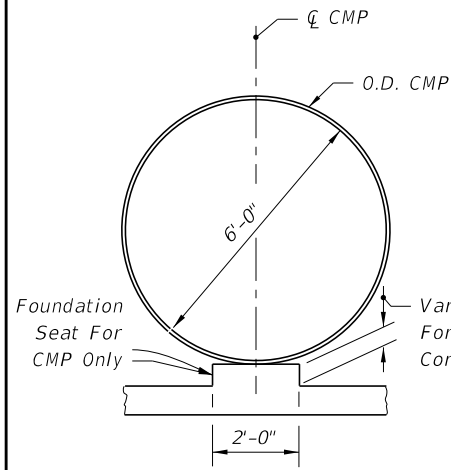


FY 2019-20
STANDARD PLANS

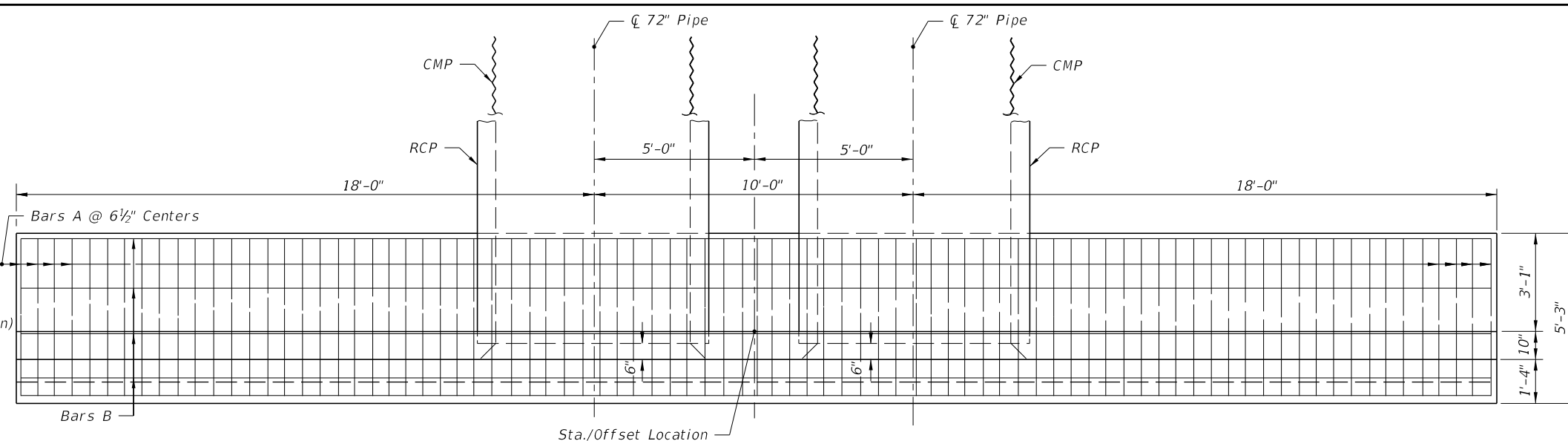
STRAIGHT CONCRETE ENDWALLS
SINGLE AND DOUBLE 72" PIPE

INDEX
430-033

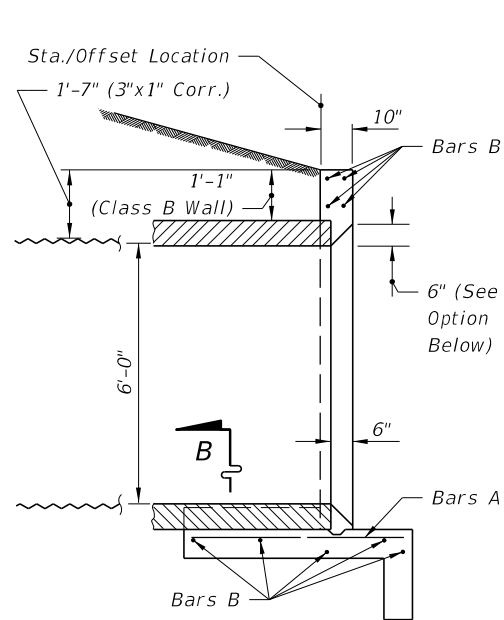
SHEET
1 of 2



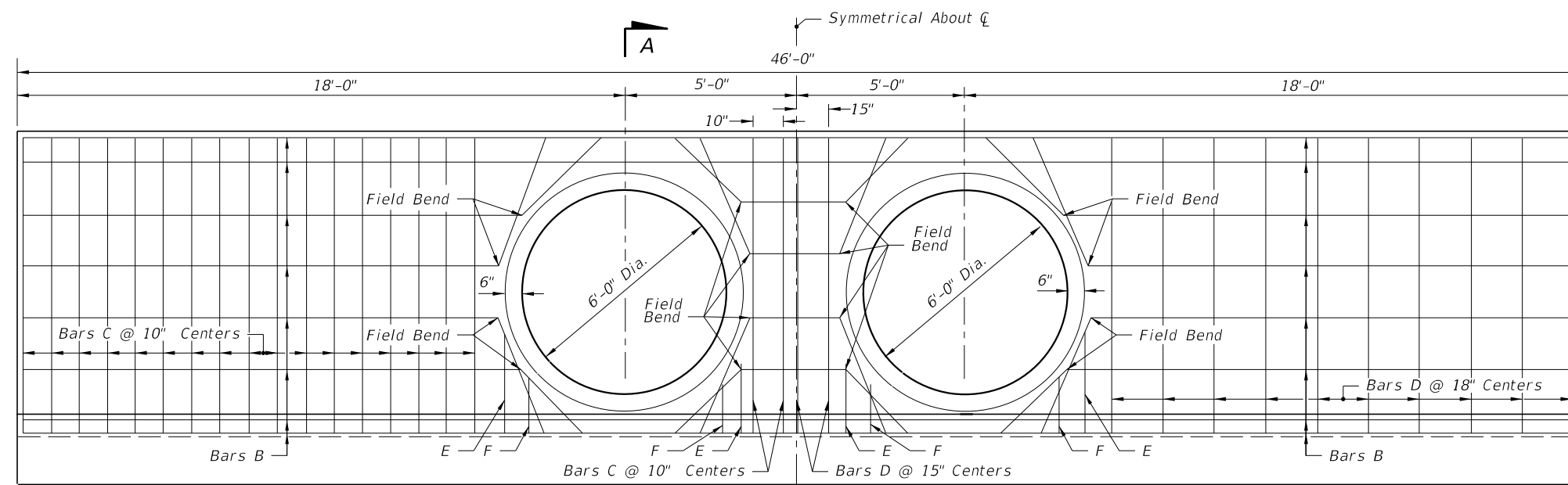
SECTION BB



PLAN
(Showing Bars In Footing)

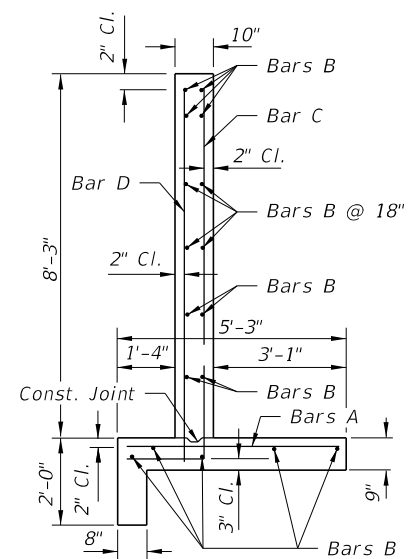


SECTION AA



HALF ELEVATION
(Showing Bars In Back Face Of Wall)

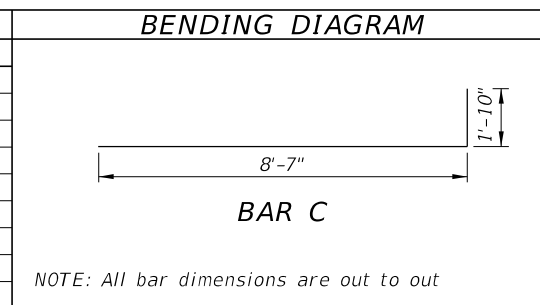
HALF ELEVATION
(Showing Bars In Front Face Of Wall)



TYPICAL SECTION
THRU ENDWALL

OPTIONAL ENTRANCE
FOR CONCRETE PIPE

| BILL OF REINFORCING STEEL | | | | | |
|---------------------------|------|-----------|--------|----------------|----------|
| MARK | SIZE | NO. REQD. | LENGTH | LOCATION | BENDING |
| A | 5 | 85 | 4'-11" | Footing | Straight |
| B | 4 | 17 | 45'-8" | Footing & Wall | Straight |
| C | 5 | 38 | 10'-5" | Wall | Bend |
| D | 4 | 23 | 8'-7" | Wall | Straight |
| E | 4 | 8 | 2'-6" | Wall | Straight |
| F | 4 | 8 | 1'-6" | Wall | Straight |



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

NOTE: See Sheet 1 of 2 for General Notes.

10/24/2018 9:00:43 AM

| LAST REVISION | DESCRIPTION: |
|---------------|--------------|
| 11/01/17 | |