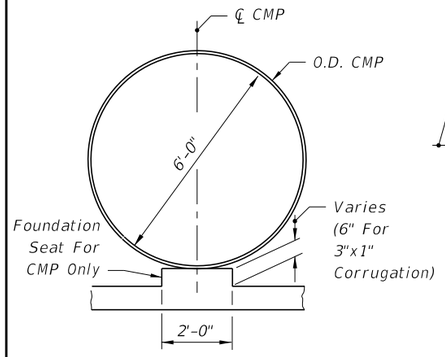
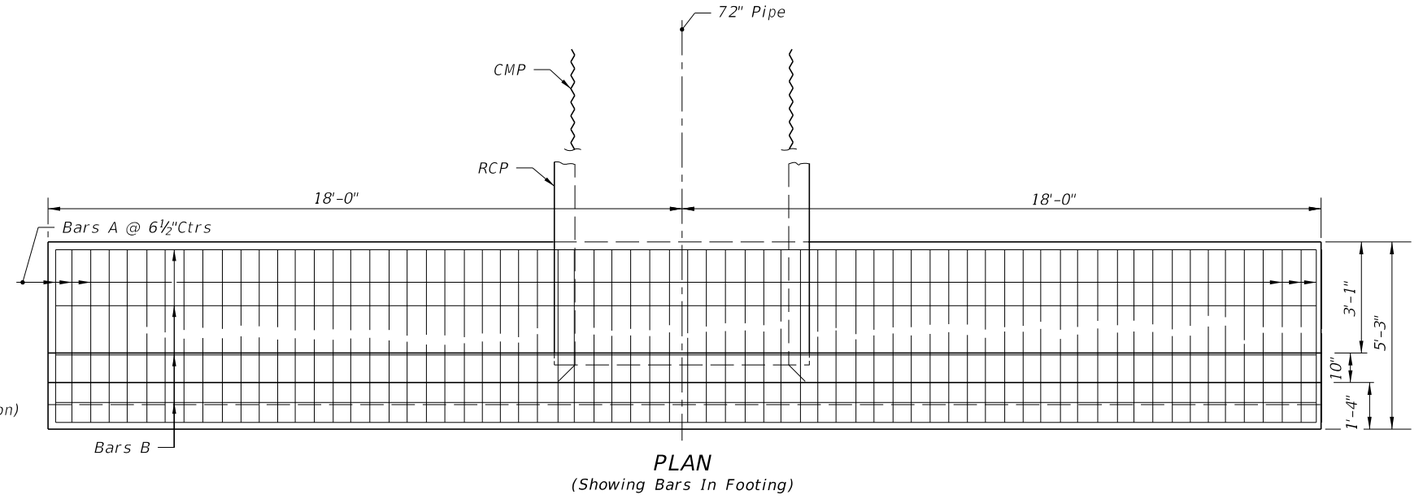


SECTION BB

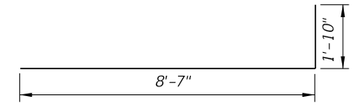


PLAN
(Showing Bars In Footing)

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

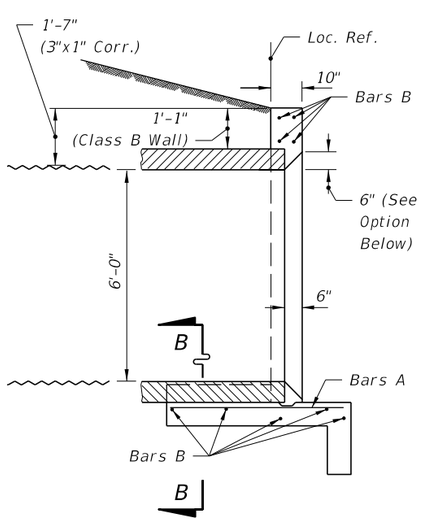


BAR C

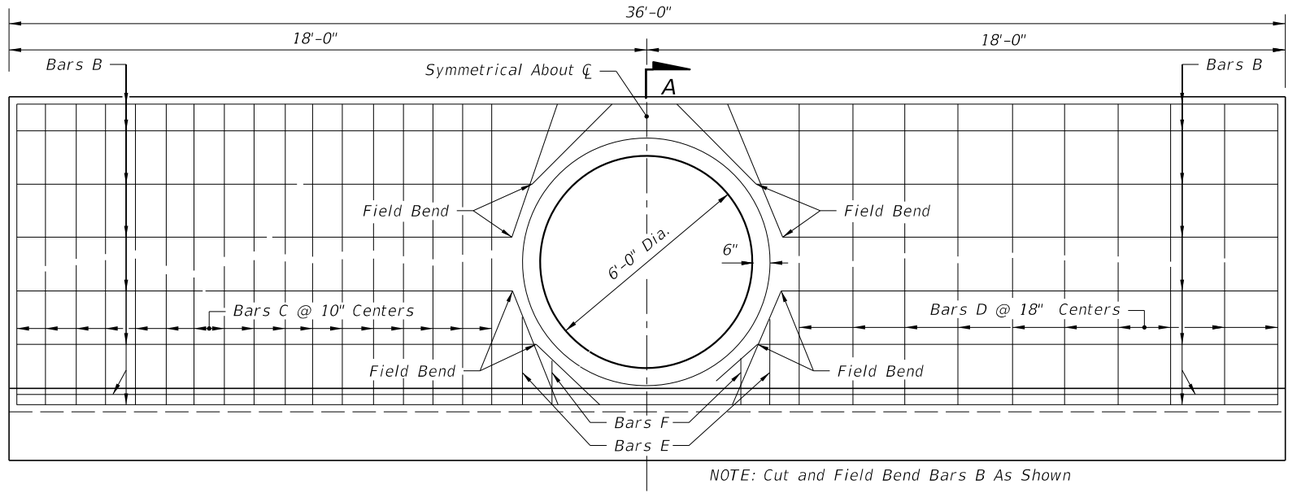
NOTE: All bar dimensions are out to out

ESTIMATED QUANTITIES

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

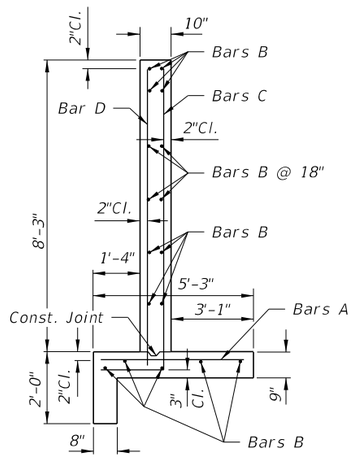


SECTION AA

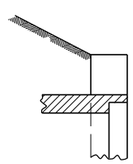


HALF ELEVATION
(Showing Bars In Back Face Of Wall)

HALF ELEVATION
(Showing Bars In Front Face Of Wall)



TYPICAL SECTION
THRU ENDWALL



OPTIONAL ENTRANCE
FOR CONCRETE PIPE

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 No. 201 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 ¾" 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 No. 281 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.

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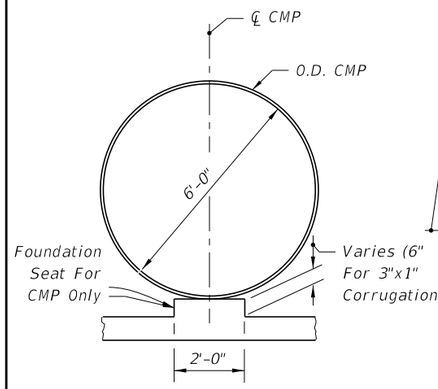
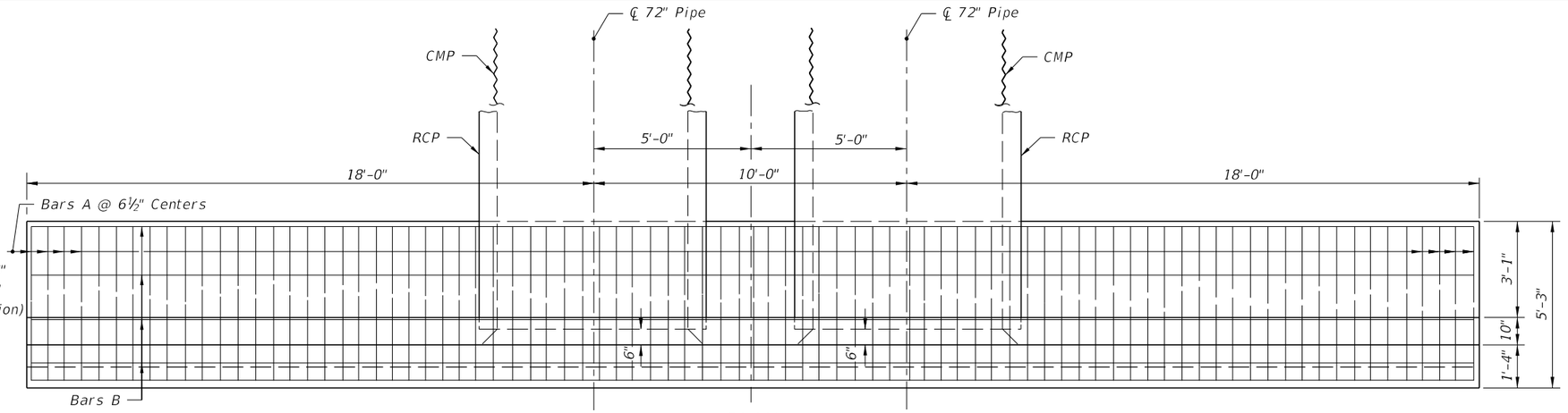
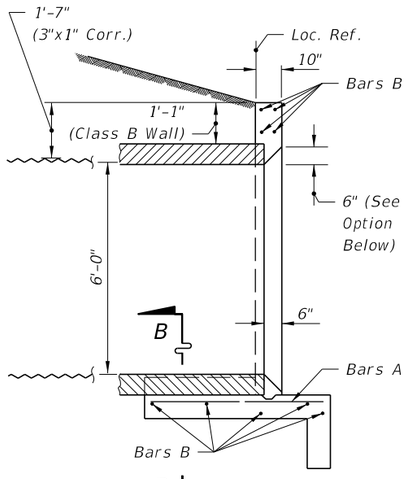
LAST REVISION	REVISION	DESCRIPTION:			
07/01/15			FY 2016-17 DESIGN STANDARDS	STRAIGHT CONCRETE ENDWALLS SINGLE AND DOUBLE 72" PIPE	INDEX NO. 253 / SHEET NO. 1 of 2



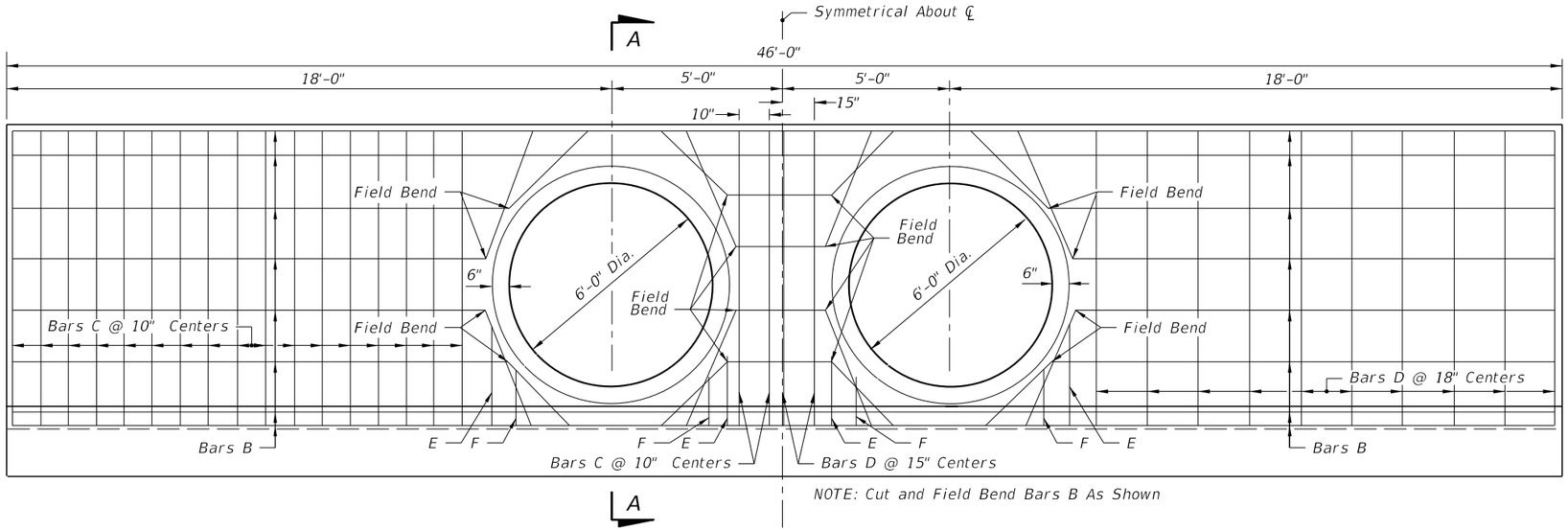
SECTION BB



PLAN
(Showing Bars In Footing)



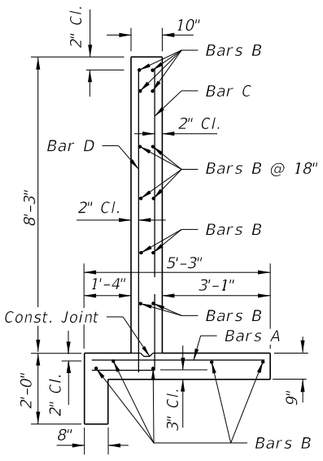
SECTION AA



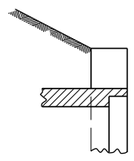
NOTE: Cut and Field Bend Bars B As Shown

HALF ELEVATION
(Showing Bars In Back Face Of Wall)

HALF ELEVATION
(Showing Bars In Front Face Of Wall)



TYPICAL SECTION
THRU ENDWALL

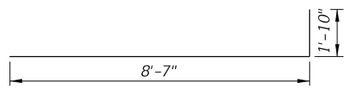


OPTIONAL ENTRANCE
FOR CONCRETE PIPE

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

BENDING DIAGRAM



BAR C

NOTE: All bar dimensions are out to out

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.

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LAST REVISION	REVISION	DESCRIPTION:			INDEX NO.	SHEET NO.
07/01/14			FY 2016-17 DESIGN STANDARDS	STRAIGHT CONCRETE ENDWALLS SINGLE AND DOUBLE 72" PIPE	253	2 of 2