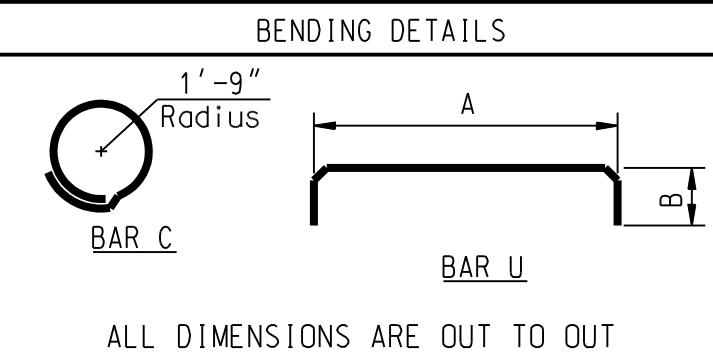
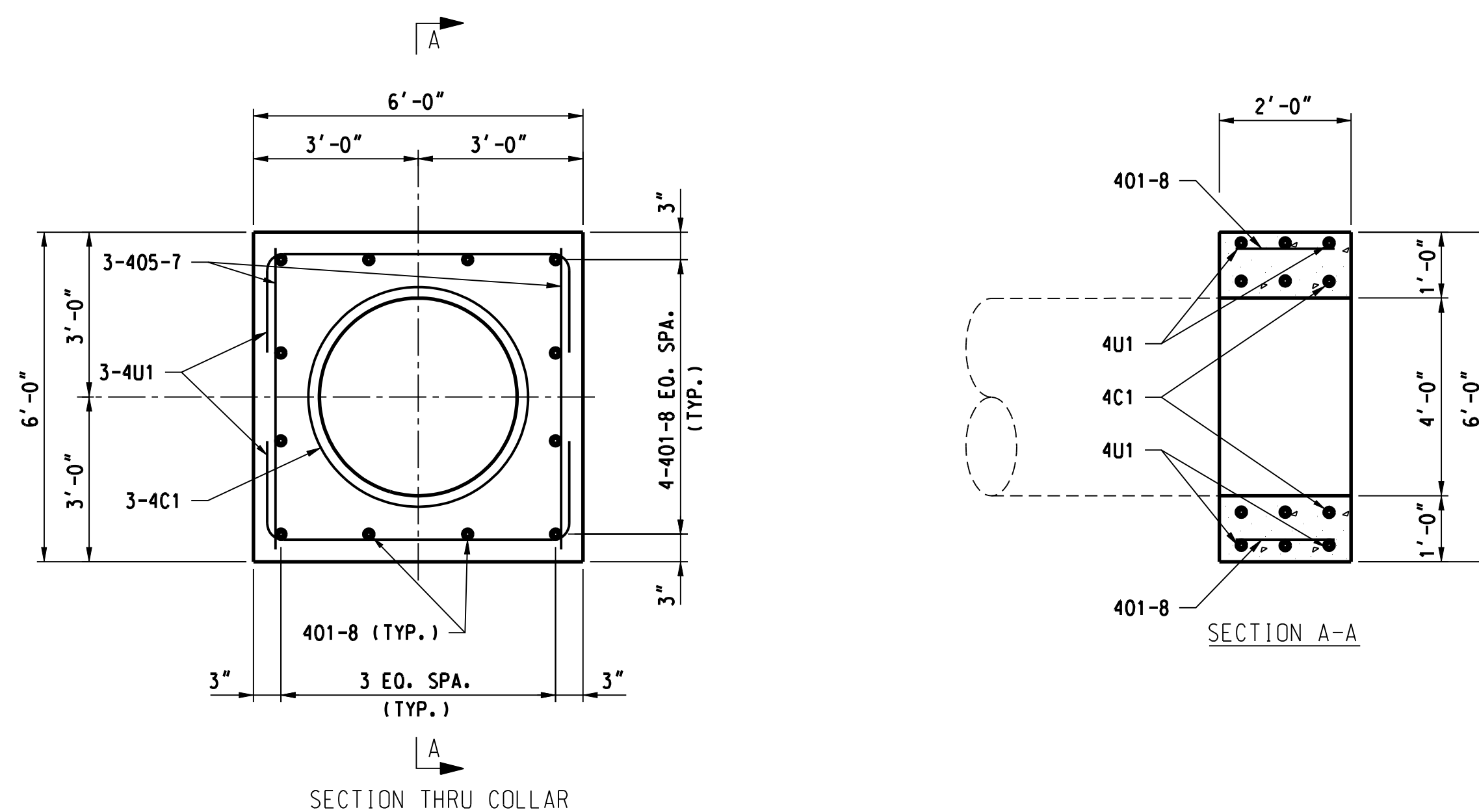


REINFORCING BARS FOR ONE CONNECTION COLLAR - 36" DIA.						
QUANTITY	MARK	SIZE	TYPE	A	B	LENGTH
3	4C1	4	C	-	-	14'-0"
6	4U1	4	U	5'-8"	1'-8"	9'-0"
12	401-8	4	-	-	-	1'-8"
6	405-7	4	-	-	-	5'-7"
WEIGHT OF REBAR = 99 LBS. PER COLLAR						
VOLUME OF CONCRETE = 2.14 CU. YDS. PER COLLAR						



CONCRETE COLLAR LIST				
MILE POST	QTY	COLLAR	UPSTREAM PIPE	DOWNSTREAM PIPE
209.72	1	36"	30" DIA. RCP	30" DIA. SSP
209.72	1	36"	30" DIA. SSP	30" DIA. RCP



CONNECTION COLLAR DETAILS (36")
NOT TO SCALE

NOTES:

GENERAL: ALL MATERIALS AND WORKMANSHIP SHALL BE AS PER THE CURRENT A.R.E.M.A. MANUAL FOR RAILWAY ENGINEERING: CHAPTER 1, PART 4 CULVERTS. THE BNSF STANDARD CONSTRUCTION SPECIFICATIONS SUPPLEMENT THE ABOVE A.R.E.M.A. MANUAL AND SHALL GOVERN.

REINFORCEMENT: STEEL BARS FOR REINFORCEMENT SHALL BE DEFORMED BILLET-STEEL BARS CONFORMING TO THE REQUIREMENTS OF THE CURRENT ASTM DESIGNATION: A615, GRADE 60, OR A706. FABRICATION OF REINFORCEMENT SHALL BE IN ACCORDANCE WITH CHAPTER 7 OF THE CURRENT CRSI MANUAL OF STANDARD PRACTICE.

CAST-IN-PLACE CONCRETE: ALL CONCRETE, CONCRETE WORK AND PLACEMENT OF REINFORCEMENT SHALL BE IN ACCORDANCE WITH SECTION 04400 OF THE BNSF STANDARD CONSTRUCTION SPECIFICATIONS. THE PORTLAND CEMENT USED IN ALL CONCRETE SHALL BE TYPE II OR IIA. ALL CONCRETE SHALL BE AIR-ENTRAINED, CONTAINING NOT LESS THAN 5 PERCENT NOR MORE THAN 7 PERCENT AIR BY VOLUME. CONCRETE SHALL BE CLASS 35 WITH AN ULTIMATE COMPRESSIVE STRENGTH THAT SHALL NOT BE LESS THAN 3500 PSI IN 28 DAYS. MAXIMUM SIZE OF COARSE AGGREGATE SHALL BE ONE INCH. THE MINIMUM CONCRETE COVER ON REINFORCEMENT SHALL BE 2 INCHES. FORMS SHALL BE FILLETED 1/4 INCH AT CORNERS. WELDED WIRE FABRIC SHALL MEET THE REQUIREMENTS OF ASTM A185.

ALL CHANGES TO THE ABOVE REQUIREMENTS SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS OF EXISTING CULVERT.

E.F. DENOTES EACH FACE.

EQ. SPA. DENOTES EQUAL SPACES.