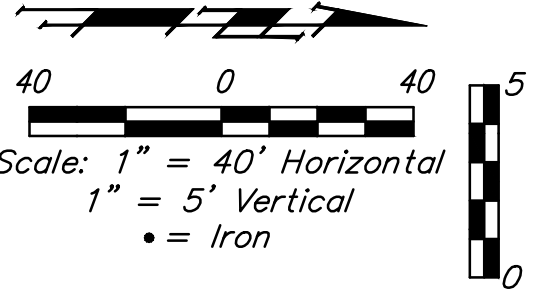
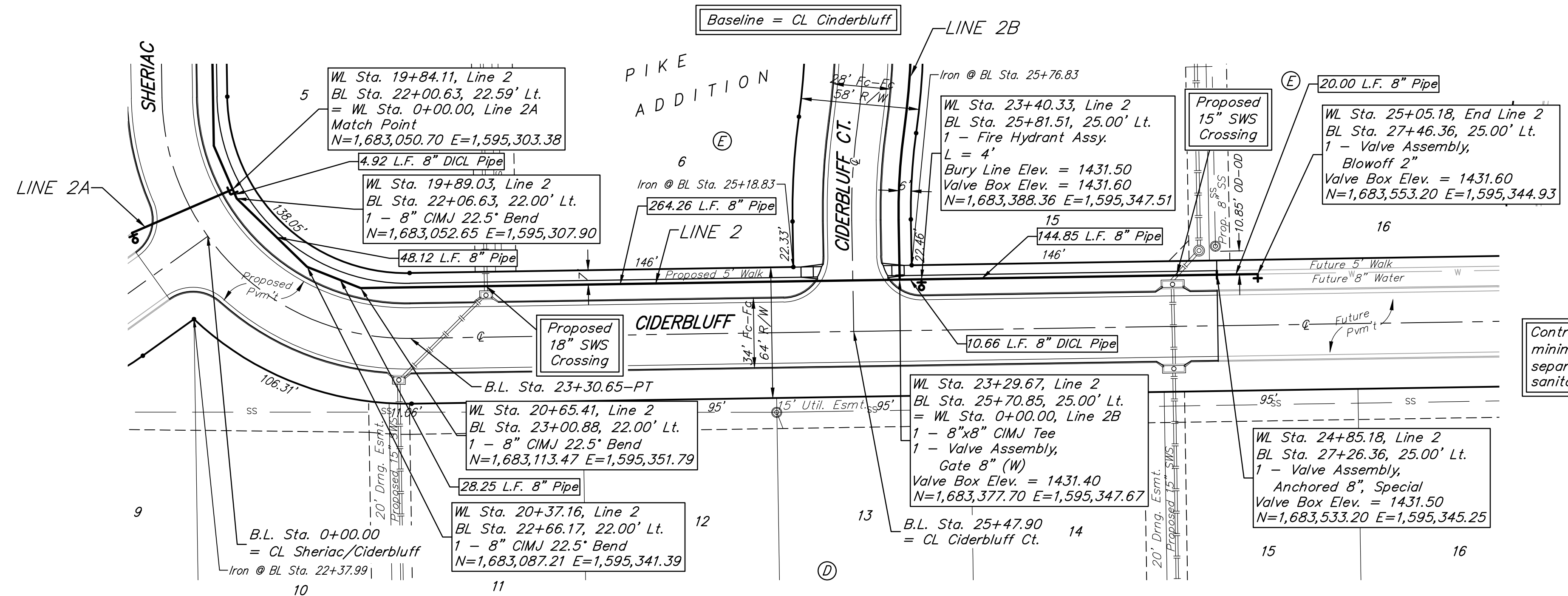


**BENCHMARK:**  
 BM #1: City of Wichita disc top of headwall of RCBC 660'± east of the SE Cor. of the SE1/4, SEC. 22, TWP. 27-S, R-2-W. Elev. = 1410.27 NAVD88

BM #2: 60d step nail in utility pole 28' east of Q 162nd St. W. and 26' north of Q of Maple. Elev. = 1417.99 NAVD88



Contractor to maintain a minimum of 10' of horizontal separation (O.D.-O.D.) between sanitary sewer and water line.

Contractor to ensure that this section of pipe is laid with and upward slope to the north, ensuring that there is no high point in water line.

**Curve #9**  
 Curve Data Based on Waterline  
 Rad. = 277' Delta = 8°57'42" Tangent = 21.71'  
 Arc = 43.33' L.C. = 43.28' Def./Ft. = 6.20471 Min.

Station	Arc	Chord Lengths	Defl.	Total Defl.
0+29.44	-	8' Right	0°00'00"	0°00'00"
0+50.00	20.56'	19.96'	2°07'34"	2°07'34"
0+72.77	22.77'	22.10'	2°21'17"	4°28'51"

For radii under 300', contractor shall use short pipe lengths.

**Curve #10**  
 Curve Data Based on Waterline  
 Rad. = 373' Delta = 21°19'22" Tangent = 70.22'  
 Arc = 138.81' L.C. = 138.01' Def./Ft. = 4.60834 Min.

Station	Arc	Chord Lengths	Defl.	Total Defl.
0+72.77	-	8' Right	0°00'00"	0°00'00"
0+75.00	2.23'	2.28'	0°10'17"	0°10'17"
1+00.00	25.00'	25.53'	1°55'12"	2°05'29"
1+25.00	25.00'	25.53'	1°55'13"	4°00'42"
1+50.00	25.00'	25.53'	1°55'12"	5°55'54"
1+75.00	25.00'	25.53'	1°55'13"	7°51'07"
2+00.00	25.00'	25.53'	1°55'12"	9°46'19"
2+11.58	11.58'	11.83'	0°53'22"	10°39'41"

**Curve #11**  
 Curve Data Based on Waterline  
 Rad. = 277' Delta = 21°12'20" Tangent = 51.85'  
 Arc = 102.52' L.C. = 101.94' Def./Ft. = 6.20529 Min.

Station	Arc	Chord Lengths	Defl.	Total Defl.
2+11.58	-	8' Right	0°00'00"	0°00'00"
2+25.00	13.42'	13.03'	1°23'17"	1°23'17"
2+50.00	25.00'	24.27'	2°35'07"	3°58'24"
2+75.00	25.00'	24.27'	2°35'08"	6°33'32"
3+00.00	25.00'	24.27'	2°35'08"	9°08'40"
3+04.29	4.29'	4.17'	0°26'38"	9°35'18"
3+14.10	9.81'	9.53'	1°00'52"	10°36'10"

**Curve #12**  
 Curve Data Based on Waterline  
 Rad. = 323' Delta = 8°50'40" Tangent = 24.98'  
 Arc = 49.86' L.C. = 49.81' Def./Ft. = 5.32157 Min.

Station	Arc	Chord Lengths	Defl.	Total Defl.
3+14.10	-	8' Right	0°00'00"	0°00'00"
3+25.00	10.90'	11.17'	0°58'00"	0°58'00"
3+50.00	25.00'	25.61'	2°13'03"	3°11'03"
3+63.96	13.96'	14.30'	1°14'17"	4°25'20"

