COREC OBRA
BLOQUE E
ZAPATAS
ELEMENTO POR ELEMENTO

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Votorantim Siderurgia

ZAPATA 1 (Son 5) Peso/Elemento= 20.40Kg Peso 5 elementos=101.98Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[1]	0.19** — 1.06 — 0.19**	7	1/2"	1.44	10.0	(Total =35)
[2]	0.19** — 1.36 — 0.19**	6	1/2"	1.74	10.4	(Total =30)

ZAPATA 2 (Son 10) Peso/Elemento= 24.56Kg Peso 10 elementos=245.62Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[3]	0.19** — 1.31 — 0.19**	7	1/2"	1.69	11.8	(Total =70)
[4]	0.19** — 1.46 — 0.19**	7	1/2"	1.84	12.8	(Total =70)

ZAPATA 3 (Son 10) Peso/Elemento= 13.32Kg Peso 10 elementos=133.20Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[5]	0.19** — 0.96 — 0.19**	5	1/2"	1.34	6.7	(Total =50)
[6]	0.19** — 0.96 — 0.19**	5	1/2"	1.34	6.7	(Total =50)

2016

Acero colombiano hecho con el corazón

PRIMERA ETAPA CENTRO DE ATENCION Y EDUCACION (VEREDA LA FUENTE)
BLOQUE E
VIGAS
RESUMEN TOTAL

PazdelRío

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RESUMEN DE PESOS BARRAS FIGURADAS

DIAMETRO	Fy (Mpa)	LONGITUD (m)	PESO (kg)
5/8"	420	840.40	1304.30
3/8"	420	1,441.28	807.12
		TOTAL BARRAS FIGURADAS	2111.42

PESO TOTAL DEL PEDIDO = 2111.42 kg

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2016

PRIMERA ETAPA CENTRO DE ATENCION Y EDUCACION (VEREDA LA FUENTE)
BLOQUE E
VIGAS
ELEMENTO POR ELEMENTO

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VIGA 1 (Son 8) Peso/Elemento= 42.54Kg Peso 8 elementos=340.30Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[1]	0.25 — 3.35 — 0.25	2	5/8"	3.85	12.0	(Total =16)
[2]	0.25 — 3.35 — 0.25	2	5/8"	3.85	12.0	(Total =16)
[3]	h, b; b=0.15 h=0.25 g=0.12	32	3/8"	1.04	18.6	(Total =256)

VIGA 2 (Son 2) Peso/Elemento= 387.31Kg Peso 2 elementos=774.62Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[4]	0.25 — 7.35	3	5/8"	7.60	35.4	(Total =6)
[5]	6.60	3	5/8"	6.60	30.7	(Total =6)
[6]	7.00	3	5/8"	7.00	32.6	(Total =6)
[7]	0.25 — 5.45	3	5/8"	5.70	26.5	(Total =6)
[8]	0.25 — 3.85	3	5/8"	4.10	19.1	(Total =6)
[9]	6.55	3	5/8"	6.55	30.5	(Total =6)
[10]	6.50	3	5/8"	6.50	30.3	(Total =6)
[11]	6.50	3	5/8"	6.50	30.3	(Total =6)
[12]	0.25 — 3.75	3	5/8"	4.00	18.6	(Total =6)
[13]	h, b; b=0.25 h=0.25 g=0.12	192	3/8"	1.24	133.3	(Total =384)

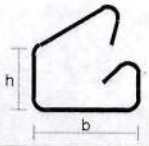
VIGA 3 (Es 1) Peso/Elemento= 281.61Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[14]	0.25 — 7.35	2	5/8"	7.60	23.6	
[15]	6.70	2	5/8"	6.70	20.8	

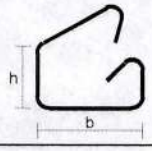
PRIMERA ETAPA CENTRO DE ATENCION Y EDUCACION (VEREDA LA FUENTE)
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	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[16]	7.00	2	5/8"	7.00	21.7	
[17]	0.25 / 5.45	2	5/8"	5.70	17.7	
[18]	0.25 / 3.85	2	5/8"	4.10	12.7	
[19]	6.60	2	5/8"	6.60	20.5	
[20]	6.50	2	5/8"	6.50	20.2	
[21]	6.50	2	5/8"	6.50	20.2	
[22]	0.25 / 3.75	2	5/8"	4.00	12.4	
[23]	 b=0.25 h=0.15 g=0.12	192	3/8"	1.04	111.8	

VIGA 4 (Son 5) Peso/Elemento= 142.98Kg Peso 5 elementos=714.89Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[24]	0.25 / 7.35	2	5/8"	7.60	23.6	(Total =10)
[25]	0.25 / 5.75	2	5/8"	6.00	18.6	(Total =10)
[26]	0.25 / 3.20	2	5/8"	3.45	10.7	(Total =10)
[27]	0.25 / 4.75	2	5/8"	5.00	15.5	(Total =10)
[28]	6.00	2	5/8"	6.00	18.6	(Total =10)
[29]	 b=0.25 h=0.15 g=0.12	96	3/8"	1.04	55.9	(Total =480)

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PRIMERA ETAPA CENTRO DE ATENCION Y EDUCACION (VEREDA LA FUENTE
COLUMNAS
BLOQUE E
RESUMEN TOTAL

RESUMEN DE PESOS BARRAS FIGURADAS

DIAMETRO	Fy (Mpa)	LONGITUD (m)	PESO (kg)
5/8"	420	565.70	877.97
3/8"	420	1,015.40	568.62
		TOTAL BARRAS FIGURADAS	1446.59

PESO TOTAL DEL PEDIDO = 1446.59 kg

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PRIMERA ETAPA CENTRO DE ATENCION Y EDUCACION (VEREDA LA FUENTE)
COLUMNAS
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COLUMNA E5-EB (Es 1) Peso/Elemento= 139.49Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[1]	0.25 — 4.50	4	5/8"	4.75	29.5	
[2]	0.25 — 1.95	4	5/8"	2.20	13.7	
[3]	0.25 — 2.45	4	5/8"	2.70	16.8	
[4]	0.25 — 4.00	4	5/8"	4.25	26.4	
[5]	h, b; b=0.22 h=0.37 g=0.12	50	3/8"	1.42	39.8	
[6]	0.12 — 0.24 — 0.12	50	3/8"	0.48	13.4	

COLUMNA E1-EB (Es 1) Peso/Elemento= 139.49Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[7]	0.25 — 4.50	4	5/8"	4.75	29.5	
[8]	0.25 — 1.95	4	5/8"	2.20	13.7	
[9]	0.25 — 2.45	4	5/8"	2.70	16.8	
[10]	0.25 — 4.00	4	5/8"	4.25	26.4	
[11]	h, b; b=0.22 h=0.37 g=0.12	50	3/8"	1.42	39.8	
[12]	0.12 — 0.24 — 0.12	50	3/8"	0.48	13.4	

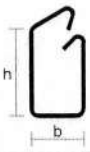
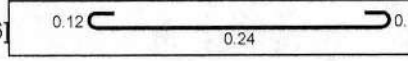
COLUMNA E4-EB (Es 1) Peso/Elemento= 96.22Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[13]	0.25 — 4.25 — 0.25	4	5/8"	4.75	29.5	
[14]	0.25 — 4.25 — 0.25	4	5/8"	4.75	29.5	

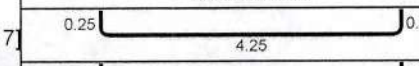
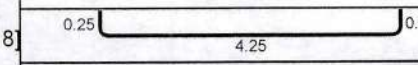
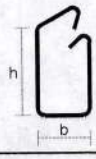
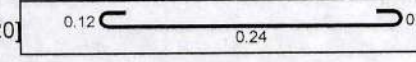
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COLUMNAS
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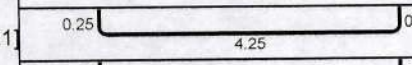
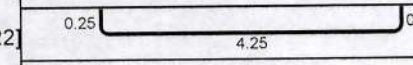
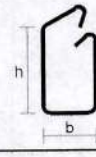
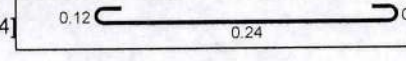
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	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[15]		35	3/8"	1.42	27.8	
[16]		35	3/8"	0.48	9.4	

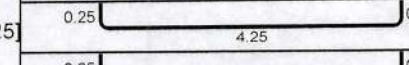
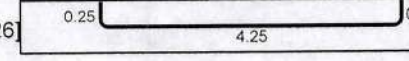
COLUMNA E4-EC (Es 1) Peso/Elemento= 96.22Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[17]		4	5/8"	4.75	29.5	
[18]		4	5/8"	4.75	29.5	
[19]		35	3/8"	1.42	27.8	
[20]		35	3/8"	0.48	9.4	

COLUMNA E3-EB (Es 1) Peso/Elemento= 96.22Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[21]		4	5/8"	4.75	29.5	
[22]		4	5/8"	4.75	29.5	
[23]		35	3/8"	1.42	27.8	
[24]		35	3/8"	0.48	9.4	

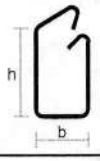
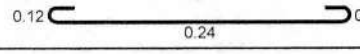
COLUMNA E3-EC (Es 1) Peso/Elemento= 96.22Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[25]		4	5/8"	4.75	29.5	
[26]		4	5/8"	4.75	29.5	

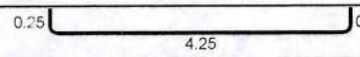
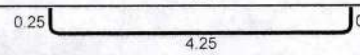
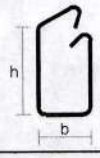
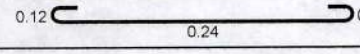
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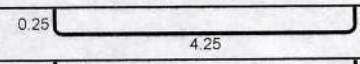
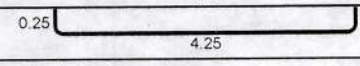
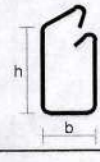
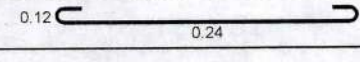
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	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[27]		35	3/8"	1.42	27.8	
[28]		35	3/8"	0.48	9.4	

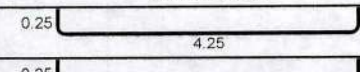
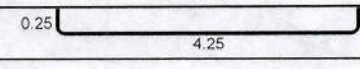
COLUMNA E2-EB (Es 1) Peso/Elemento= 96.22Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[29]		4	5/8"	4.75	29.5	
[30]		4	5/8"	4.75	29.5	
[31]		35	3/8"	1.42	27.8	
[32]		35	3/8"	0.48	9.4	

COLUMNA E2-EC (Es 1) Peso/Elemento= 96.22Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[33]		4	5/8"	4.75	29.5	
[34]		4	5/8"	4.75	29.5	
[35]		35	3/8"	1.42	27.8	
[36]		35	3/8"	0.48	9.4	

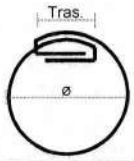
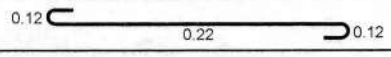
COLUMNA E5-ED (Es 1) Peso/Elemento= 73.29Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[37]		3	5/8"	4.75	22.1	
[38]		3	5/8"	4.75	22.1	

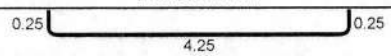
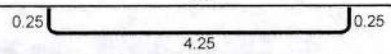
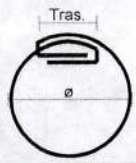
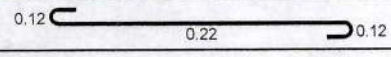
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ELEMENTO POR ELEMENTO

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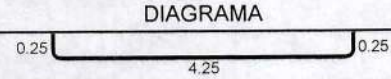
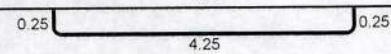
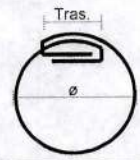
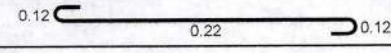
Votorantim Siderurgia

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[39]	 ø=0.22 Tras.=0.05 g=0.12	36	3/8"	0.98	19.8	
[40]		36	3/8"	0.46	9.3	

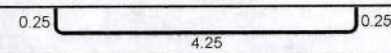
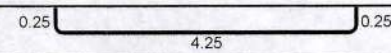
COLUMNA E4-ED (Es 1) Peso/Elemento= 73.29Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[41]		3	5/8"	4.75	22.1	
[42]		3	5/8"	4.75	22.1	
[43]	 ø=0.22 Tras.=0.05 g=0.12	36	3/8"	0.98	19.8	
[44]		36	3/8"	0.46	9.3	

COLUMNA E3-ED (Es 1) Peso/Elemento= 73.29Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[45]		3	5/8"	4.75	22.1	
[46]		3	5/8"	4.75	22.1	
[47]	 ø=0.22 Tras.=0.05 g=0.12	36	3/8"	0.98	19.8	
[48]		36	3/8"	0.46	9.3	

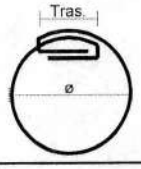
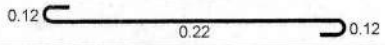
COLUMNA E2-ED (Es 1) Peso/Elemento= 73.29Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[49]		3	5/8"	4.75	22.1	
[50]		3	5/8"	4.75	22.1	

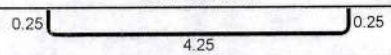
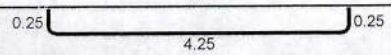
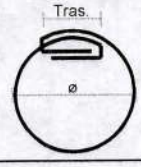
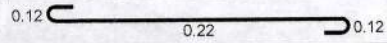
PRIMERA ETAPA CENTRO DE ATENCION Y EDUCACION (VEREDA LA FUENTE)
COLUMNAS
BLOQUE E
ELEMENTO POR ELEMENTO

PazdelRío

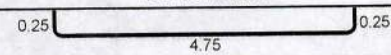
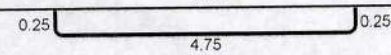
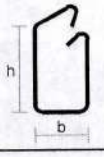
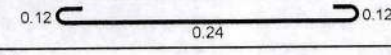
Votorantim Siderurgia

[51]	 ø=0.22 Tras.=0.05 g=0.12	36	3/8"	0.98	19.8	
[52]		36	3/8"	0.46	9.3	

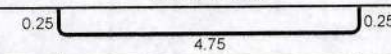
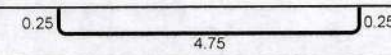
COLUMNA E1-ED (Es 1) Peso/Elemento= 73.29Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[53]		3	5/8"	4.75	22.1	
[54]		3	5/8"	4.75	22.1	
[55]	 ø=0.22 Tras.=0.05 g=0.12	36	3/8"	0.98	19.8	
[56]		36	3/8"	0.46	9.3	

COLUMNA E5-EC (Es 1) Peso/Elemento= 112.00Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[57]		4	5/8"	5.25	32.6	/
[58]		4	5/8"	5.25	32.6	/
[59]	 b=0.22 h=0.37 g=0.12	44	3/8"	1.42	35.0	
[60]		44	3/8"	0.48	11.8	

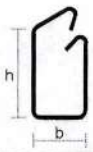
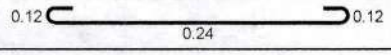
COLUMNA E1-EC (Es 1) Peso/Elemento= 112.00Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[61]		4	5/8"	5.25	32.6	/
[62]		4	5/8"	5.25	32.6	/

PRIMERA ETAPA CENTRO DE ATENCION Y EDUCACION (VEREDA LA FUENTE)
COLUMNAS
BLOQUE E
ELEMENTO POR ELEMENTO

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[63]	 b=0.22 h=0.37 g=0.12	44	3/8"	1.42	35.0		
[64]		44	3/8"	0.48	11.8		

PazdelRío
Votorantim Siderurgia
2016

PRIMERA ETAPA CENTRO DE ATENCION Y EDUCACION (VEREDA LA FUENTE
BLOQUE F
ZAPATAS
RESUMEN TOTAL

PazdelRío

Votorantim Siderurgia

RESUMEN DE PESOS BARRAS FIGURADAS

DIAMETRO	Fy (Mpa)	LONGITUD (m)	PESO (kg)
1/2"	420	435.12	432.51
		TOTAL BARRAS FIGURADAS	432.51

PESO TOTAL DEL PEDIDO = 432.51 kg

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Votorantim Siderurgia
2016

PRIMERA ETAPA CENTRO DE ATENCION Y EDUCACION (VEREDA LA FUENTE
BLOQUE F
ZAPATAS
ELEMENTO POR ELEMENTO

PazdelRío

Votorantim Siderurgia

ZAPATA 1 (Son 7) Peso/Elemento= 20.40Kg Peso 7 elementos=142.78Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[1]	0.19** — 1.06 — 0.19**	7	1/2"	1.44	10.0	(Total =49)
[2]	0.19** — 1.36 — 0.19**	6	1/2"	1.74	10.4	(Total =42)

ZAPATA 2 (Son 7) Peso/Elemento= 24.56Kg Peso 7 elementos=171.93Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[3]	0.19** — 1.31 — 0.19**	7	1/2"	1.69	11.8	(Total =49)
[4]	0.19** — 1.46 — 0.19**	7	1/2"	1.84	12.8	(Total =49)

ZAPATA 4 (Son 7) Peso/Elemento= 16.83Kg Peso 7 elementos=117.80Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[5]	0.19** — 0.71 — 0.19**	5	1/2"	1.09	5.4	(Total =35)
[6]	0.19** — 1.26 — 0.19**	7	1/2"	1.64	11.4	(Total =49)

2016

Acero colombiano hecho con el corazón

** Concebe fuera de norma - comunicarse con ACERIAS PAZ DEL RIO

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PRIMERA ETAPA CENTRO DE ATENCION Y EDUCACION (VEREDA LA FUENTE
VIGAS
BLOQUE F
RESUMEN TOTAL

RESUMEN DE PESOS BARRAS FIGURADAS

DIAMETRO	Fy (Mpa)	LONGITUD (m)	PESO (kg)
5/8"	420	1,314.75	2040.49
3/8"	420	2,246.40	1257.98
		TOTAL BARRAS FIGURADAS	3298.48

PESO TOTAL DEL PEDIDO = 3298.48 kg

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2016

840

PRIMERA ETAPA CENTRO DE ATENCION Y EDUCACION (VEREDA LA FUENTE
VIGAS
BLOQUE F
ELEMENTO POR ELEMENTO

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VIGA 1 (Son 12) Peso/Elemento= 42.54Kg Peso 12 elementos=510.45Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[1]	0.25 — 3.35 — 0.25	2	5/8"	3.85	12.0	(Total =24)
[2]	0.25 — 3.35 — 0.25	2	5/8"	3.85	12.0	(Total =24)
[3]	h, b; b=0.15 h=0.25 g=0.12	32	3/8"	1.04	18.6	(Total =384)

VIGA 2 (Son 2) Peso/Elemento= 581.31Kg Peso 2 elementos=1162.63Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[4]	0.25 — 7.35	3	5/8"	7.60	35.4	(Total =6)
[5]	6.60	3	5/8"	6.60	30.7	(Total =6)
[6]	6.95	3	5/8"	6.95	32.4	(Total =6)
[7]	6.90	3	5/8"	6.90	32.1	(Total =6)
[8]	6.95	3	5/8"	6.95	32.4	(Total =6)
[9]	0.25 — 5.25	3	5/8"	5.50	25.6	(Total =6)
[10]	0.25 — 4.25	3	5/8"	4.50	21.0	(Total =6)
[11]	6.45	3	5/8"	6.45	30.0	(Total =6)
[12]	6.55	3	5/8"	6.55	30.5	(Total =6)
[13]	6.60	3	5/8"	6.60	30.7	(Total =6)
[14]	6.60	3	5/8"	6.60	30.7	(Total =6)
[15]	6.60	3	5/8"	6.60	30.7	(Total =6)
[16]	0.25 — 3.85	3	5/8"	4.10	19.1	(Total =6)
[17]	h, b; b=0.25 h=0.25 g=0.12	288	3/8"	1.24	200.0	(Total =576)

VIGA 3 (Es 1) Peso/Elemento= 549.29Kg

DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS

Acero colombiano hecho con el corazón

PRIMERA ETAPA CENTRO DE ATENCION Y EDUCACION (VEREDA LA FUENTE
VIGAS
BLOQUE F
ELEMENTO POR ELEMENTO

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Votorantim Siderurgia

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[18]	0.25 / 7.35	3	5/8"	7.60	35.4	
[19]	6.60	3	5/8"	6.60	30.7	
[20]	7.00	3	5/8"	7.00	32.6	
[21]	6.90	3	5/8"	6.90	32.1	
[22]	6.95	3	5/8"	6.95	32.4	
[23]	0.25 / 5.25	3	5/8"	5.50	25.6	
[24]	0.25 / 4.25	3	5/8"	4.50	21.0	
[25]	6.45	3	5/8"	6.45	30.0	
[26]	6.55	3	5/8"	6.55	30.5	
[27]	6.60	3	5/8"	6.60	30.7	
[28]	6.60	3	5/8"	6.60	30.7	
[29]	6.60	3	5/8"	6.60	30.7	
[30]	0.25 / 3.85	3	5/8"	4.10	19.1	
[31]	h, b; b=0.25 h=0.15 g=0.12	288	3/8"	1.04	167.7	

VIGA 4 (Son 7) Peso/Elemento= 153.73Kg Peso 7 elementos=1076.11Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[32]	0.25 / 7.35	2	5/8"	7.60	23.6	(Total =14)
[33]	0.25 / 5.75	2	5/8"	6.00	18.6	(Total =14)
[34]	0.25 / 4.75	2	5/8"	5.00	15.5	(Total =14)
[35]	0.25 / 3.25	2	5/8"	3.50	10.9	(Total =14)
[36]	5.95	2	5/8"	5.95	18.5	(Total =14)
[37]	h, b; b=0.25 h=0.25 g=0.12	96	3/8"	1.24	66.7	(Total =672)

PRIMERA ETAPA CENTRO DE ATENCION Y EDUCACION (VEREDA LA FUENTE
COLUMNAS
BLOQUE F
RESUMEN TOTAL

PazdelRío

Votorantim Siderurgia

RESUMEN DE PESOS BARRAS FIGURADAS

DIAMETRO	Fy (Mpa)	LONGITUD (m)	PESO (kg)
5/8"	420	826.70	1283.04
3/8"	420	1,413.58	791.60
		TOTAL BARRAS FIGURADAS	2074.64

PESO TOTAL DEL PEDIDO = 2074.64 kg

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2016

PRIMERA ETAPA CENTRO DE ATENCION Y EDUCACION (VEREDA LA FUENTE
COLUMNAS
BLOQUE F
ELEMENTO POR ELEMENTO

PazdelRío

Votorantim Siderurgia

COLUMNA F1-FD (Es 1) Peso/Elemento= 73.29Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[1]	0.25 — 4.25 — 0.25	6	5/8"	4.75	44.2	
[2]	Tras. / ø — ø=0.22 Tras.=0.05 g=0.12	36	3/8"	0.98	19.8	
[3]	0.12 — 0.22 — 0.12	36	3/8"	0.46	9.3	

COLUMNA EF-F1 (Es 1) Peso/Elemento= 96.22Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[4]	0.25 — 4.25 — 0.25	4	5/8"	4.75	29.5	
[5]	0.25 — 4.25 — 0.25	4	5/8"	4.75	29.5	
[6]	h / b — b=0.22 h=0.37 g=0.12	35	3/8"	1.42	27.8	
[7]	0.12 — 0.24 — 0.12	35	3/8"	0.48	9.4	

COLUMNA FB-F1 (Es 1) Peso/Elemento= 126.90Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[8]	0.25 — 4.50	4	5/8"	4.75	29.5	
[9]	0.25 — 1.45	4	5/8"	1.70	10.6	
[10]	0.25 — 2.45	4	5/8"	2.70	16.8	
[11]	0.25 — 3.50	4	5/8"	3.75	23.3	
[12]	h / b — b=0.22 h=0.37 g=0.12	44	3/8"	1.42	35.0	
[13]	0.12 — 0.24 — 0.12	44	3/8"	0.48	11.8	

Acero colombiano hecho con el corazón

PRIMERA ETAPA CENTRO DE ATENCION Y EDUCACION (VEREDA LA FUENTE
COLUMNAS
BLOQUE F
ELEMENTO POR ELEMENTO

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COLUMNA EF-F2 (Es 1) Peso/Elemento= 96.22Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[14]	0.25 — 4.25 — 0.25	4	5/8"	4.75	29.5	
[15]	0.25 — 4.25 — 0.25	4	5/8"	4.75	29.5	
[16]	h, b; b=0.22 h=0.37 g=0.12	35	3/8"	1.42	27.8	
[17]	0.12 — 0.24 — 0.12	35	3/8"	0.48	9.4	

COLUMNA EF-F3 (Es 1) Peso/Elemento= 96.22Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[18]	0.25 — 4.25 — 0.25	4	5/8"	4.75	29.5	
[19]	0.25 — 4.25 — 0.25	4	5/8"	4.75	29.5	
[20]	h, b; b=0.22 h=0.37 g=0.12	35	3/8"	1.42	27.8	
[21]	0.12 — 0.24 — 0.12	35	3/8"	0.48	9.4	

COLUMNA EF-F4 (Es 1) Peso/Elemento= 96.22Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[22]	0.25 — 4.25 — 0.25	4	5/8"	4.75	29.5	
[23]	0.25 — 4.25 — 0.25	4	5/8"	4.75	29.5	
[24]	h, b; b=0.22 h=0.37 g=0.12	35	3/8"	1.42	27.8	
[25]	0.12 — 0.24 — 0.12	35	3/8"	0.48	9.4	

COLUMNA EF-F5 (Es 1) Peso/Elemento= 96.22Kg

DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS

PRIMERA ETAPA CENTRO DE ATENCION Y EDUCACION (VEREDA LA FUENTE
COLUMNAS
BLOQUE F
ELEMENTO POR ELEMENTO

PazdelRío

Votorantim Siderurgia

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[26]	0.25 — 4.25 — 0.25	4	5/8"	4.75	29.5	
[27]	0.25 — 4.25 — 0.25	4	5/8"	4.75	29.5	
[28]	h, b; b=0.22 h=0.37 g=0.12	35	3/8"	1.42	27.8	
[29]	0.12 — 0.24 — 0.12	35	3/8"	0.48	9.4	

COLUMNA EF-F6 (Es 1) Peso/Elemento= 96.22Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[30]	0.25 — 4.25 — 0.25	4	5/8"	4.75	29.5	
[31]	0.25 — 4.25 — 0.25	4	5/8"	4.75	29.5	
[32]	h, b; b=0.22 h=0.37 g=0.12	35	3/8"	1.42	27.8	
[33]	0.12 — 0.24 — 0.12	35	3/8"	0.48	9.4	

COLUMNA EF-F7 (Es 1) Peso/Elemento= 96.22Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[34]	0.25 — 4.25 — 0.25	4	5/8"	4.75	29.5	
[35]	0.25 — 4.25 — 0.25	4	5/8"	4.75	29.5	
[36]	h, b; b=0.22 h=0.37 g=0.12	35	3/8"	1.42	27.8	
[37]	0.12 — 0.24 — 0.12	35	3/8"	0.48	9.4	

COLUMNA FB-F2 (Es 1) Peso/Elemento= 126.90Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[38]	0.25 — 4.50	4	5/8"	4.75	29.5	

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	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[39]	0.25 — 1.45	4	5/8"	1.70	10.6	
[40]	0.25 — 2.45	4	5/8"	2.70	16.8	
[41]	0.25 — 3.50	4	5/8"	3.75	23.3	
[42]	h, b; b=0.22 h=0.37 g=0.12	44	3/8"	1.42	35.0	
[43]	0.12 — 0.24 — 0.12	44	3/8"	0.48	11.8	

COLUMNA FB-F3 (Es 1) Peso/Elemento= 126.90Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[44]	0.25 — 4.50	4	5/8"	4.75	29.5	
[45]	0.25 — 1.45	4	5/8"	1.70	10.6	
[46]	0.25 — 2.45	4	5/8"	2.70	16.8	
[47]	0.25 — 3.50	4	5/8"	3.75	23.3	
[48]	h, b; b=0.22 h=0.37 g=0.12	44	3/8"	1.42	35.0	
[49]	0.12 — 0.24 — 0.12	44	3/8"	0.48	11.8	

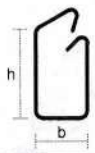
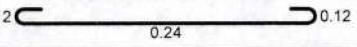
COLUMNA FB-F4 (Es 1) Peso/Elemento= 126.90Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[50]	0.25 — 4.50	4	5/8"	4.75	29.5	
[51]	0.25 — 1.45	4	5/8"	1.70	10.6	
[52]	0.25 — 2.45	4	5/8"	2.70	16.8	
[53]	0.25 — 3.50	4	5/8"	3.75	23.3	

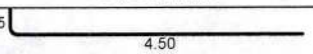
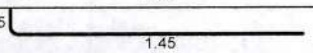
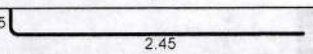
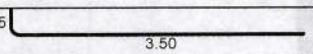
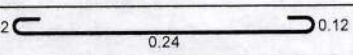
PRIMERA ETAPA CENTRO DE ATENCION Y EDUCACION (VEREDA LA FUENTE
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ELEMENTO POR ELEMENTO

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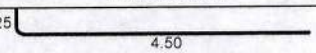
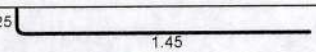
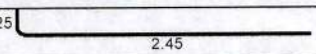
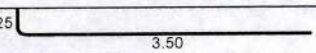
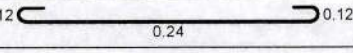
Votorantim Siderurgia

[54]		44	3/8"	1.42	35.0	
[55]		44	3/8"	0.48	11.8	

COLUMNA FB-F5 (Es 1) Peso/Elemento= 126.90Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[56]		4	5/8"	4.75	29.5	
[57]		4	5/8"	1.70	10.6	
[58]		4	5/8"	2.70	16.8	
[59]		4	5/8"	3.75	23.3	
[60]		44	3/8"	1.42	35.0	
[61]		44	3/8"	0.48	11.8	

COLUMNA FB-F6 (Es 1) Peso/Elemento= 126.90Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[62]		4	5/8"	4.75	29.5	
[63]		4	5/8"	1.70	10.6	
[64]		4	5/8"	2.70	16.8	
[65]		4	5/8"	3.75	23.3	
[66]		44	3/8"	1.42	35.0	
[67]		44	3/8"	0.48	11.8	

COLUMNA FB-F7 (Es 1) Peso/Elemento= 126.90Kg

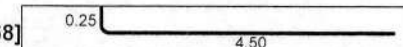
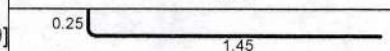
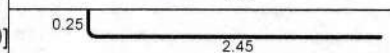
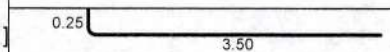
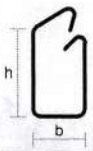
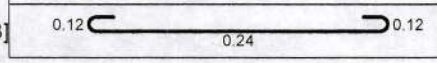
DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS

Acero colombiano hecho con el corazón

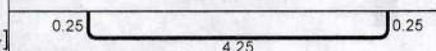
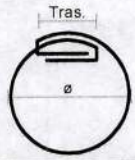
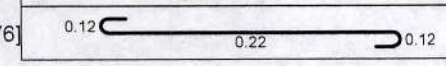
PRIMERA ETAPA CENTRO DE ATENCION Y EDUCACION (VEREDA LA FUENTE
COLUMNAS
BLOQUE F
ELEMENTO POR ELEMENTO

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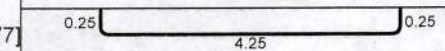
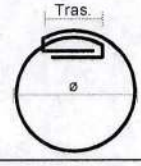
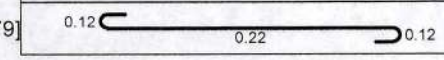
Votorantim Siderurgia

[68]		4	5/8"	4.75	29.5	
[69]		4	5/8"	1.70	10.6	
[70]		4	5/8"	2.70	16.8	
[71]		4	5/8"	3.75	23.3	
[72]		44	3/8"	1.42	35.0	
[73]		44	3/8"	0.48	11.8	

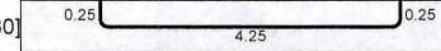
COLUMNA F2-FD (Es 1) Peso/Elemento= 73.29Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[74]		6	5/8"	4.75	44.2	
[75]		36	3/8"	0.98	19.8	
[76]		36	3/8"	0.46	9.3	

COLUMNA F3-FD (Es 1) Peso/Elemento= 73.29Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[77]		6	5/8"	4.75	44.2	
[78]		36	3/8"	0.98	19.8	
[79]		36	3/8"	0.46	9.3	

COLUMNA F4-FD (Es 1) Peso/Elemento= 73.29Kg

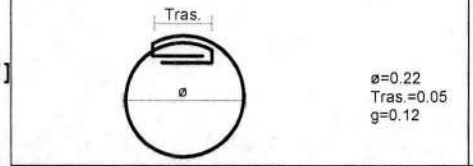
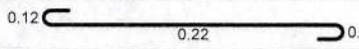
	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[80]		6	5/8"	4.75	44.2	

Acero colombiano hecho con el corazón

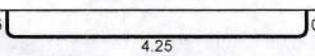
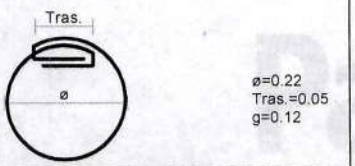
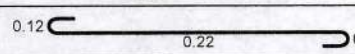
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COLUMNAS
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ELEMENTO POR ELEMENTO

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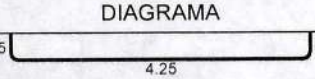
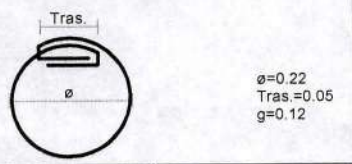
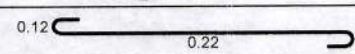
Votorantim Siderurgia

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[81]		36	3/8"	0.98	19.8	
[82]		36	3/8"	0.46	9.3	

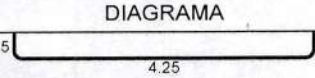
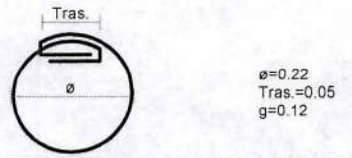
COLUMNA F5-FD (Es 1) Peso/Elemento= 73.29Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[83]		6	5/8"	4.75	44.2	
[84]		36	3/8"	0.98	19.8	
[85]		36	3/8"	0.46	9.3	

COLUMNA F6-FD (Es 1) Peso/Elemento= 73.29Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[86]		6	5/8"	4.75	44.2	
[87]		36	3/8"	0.98	19.8	
[88]		36	3/8"	0.46	9.3	

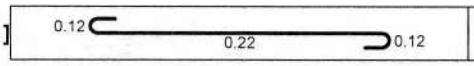
COLUMNA F7-FD (Es 1) Peso/Elemento= 73.29Kg

	DIAGRAMA	CANTIDAD	DIAMETRO	LONGITUD	PESO T	NOTAS
[89]		6	5/8"	4.75	44.2	
[90]		36	3/8"	0.98	19.8	

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[91]		36	3/8"	0.46	9.3		

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2016