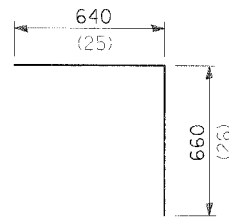


F.A.P. No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
361	06-00214-03-BR	KANE	52	43
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

SIZES OF STRAIGHT BARS

BARS	SIZE	LENGTH	BARS	SIZE	LENGTH
b	No. 15 (No. 5) (6'-3")	1.9 m	b ₁₃	No. 15 (No. 4) (15'-0")	4.57 m
b ₁	No. 15 (No. 5) (6'-9")	2.06 m	b ₁₄	No. 15 (No. 4) (15'-6")	4.72 m
b ₂	No. 15 (No. 5) (7'-3")	2.21 m	b ₁₅	No. 15 (No. 4) (16'-6")	5.03 m
b ₃	No. 15 (No. 5) (8'-0")	2.44 m	b ₁₆	No. 15 (No. 4) (17'-0")	5.18 m
b ₄	No. 15 (No. 4) (8'-3")	2.51 m	b ₁₇	No. 15 (No. 4) (19'-0")	5.79 m
b ₅	No. 15 (No. 4) (9'-0")	2.74 m	b ₁₈	No. 15 (No. 4) (4'-9")	1.45 m
b ₆	No. 15 (No. 4) (10'-0")	3.05 m	b ₁₉	No. 15 (No. 4) (6'-3")	1.9 m
b ₇	No. 15 (No. 4) (10'-6")	3.2 m	b ₂₀	No. 15 (No. 4) (5'-3")	1.6 m
b ₈	No. 15 (No. 5) (11'-3")	3.43 m	b ₂₁	No. 15 (No. 4) (7'-3")	2.2 m
b ₉	No. 15 (No. 5) (12'-0")	3.66 m	b ₂₂	No. 15 (No. 4) (6'-0")	1.83 m
b ₁₀	No. 15 (No. 4) (13'-0")	3.96 m	b ₂₃	No. 15 (No. 4) (8'-0")	2.44 m
b ₁₁	No. 15 (No. 4) (13'-6")	4.11 m	b ₂₄	No. 15 (No. 4) (6'-6")	1.98 m
b ₁₂	No. 15 (No. 4) (14'-3")	4.34 m	b ₂₅	No. 15 (No. 4) (8'-9")	2.67 m
w	No. 15 (No. 4) (4'-0")	1.22 m	h ₁₆	No. 4 (14'-3")	4.33 m
			h ₂₀	No. 4 (3'-9")	1.14 m
			h ₂₁	No. 4 (4'-8")	1.43 m
			h ₂₂	No. 4 (2'-6")	0.79 m



BAR d

BARS IN ONE END SECTION

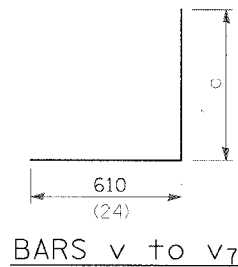
1050 Pipe (42)		1200 Pipe (48)		1350 Pipe (54)		1500 Pipe (60)	
D1.05 -1/2 (D42-1/2)	D1.05 -2 (D42-2)	D1.2 -1/2 (D48-1/2)	D1.2 -2 (D48-2)	D1.35 -1/2 (D54-1/2)	D1.35 -2 (D54-2)	D1.5 -1/2 (D60-1/2)	D1.5 -2 (D60-2)
BARS No.	BARS No.	BARS No.	BARS No.	BARS No.	BARS No.	BARS No.	BARS No.
d	8	d	9	d	10	d	11
b	2	b	2	b ₁	2	b ₃	2
b ₅	1	b ₄	1	b ₇	1	b ₇	1
b ₈	2	b ₈	1	b ₁₀	1	b ₁₁	1
		b ₁₁	2	b ₁₄	2	b ₁₄	2
						b ₁₅	1
h	2	h ₁	2	h ₁	2	h ₆	2
h ₉	4	h ₆	4	h ₉	6	h ₁₄	4
v ₃	2	v ₃	2	v ₂	4	v	2
v ₄	2	v ₄	2	v ₃	4	v ₁	2
v ₅	2	v ₅	4	v ₄	22	v ₂	2
v ₆	2	v ₆	2	v ₅	2	v ₃	4
v ₇	2	v ₇	2	v ₆	4	v ₄	2
w	2	w	2	w	2	w	2
				h ₁₆	3		
				h ₂₀	4		
				h ₂₁	4		
				h ₂₂	8		

DIMENSIONS OF BENT BARS

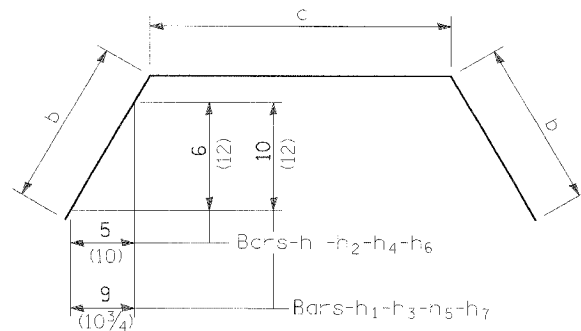
No. 15-bars v to v ₇ (No. 5)			No. 15-bars h to h ₇ (No. 5)		
BARS	c	TOTAL LENGTH	BARS	a	TOTAL LENGTH
v	1.83 m (6'-0")	2.44 m (8'-0")	h	1.42 m (4'-8")	1.57 m (5'-2")
v ₁	1.68 m (5'-6")	2.29 m (7'-6")	h ₁	1.42 m (4'-8")	2.03 m (6'-8")
v ₂	1.52 m (5'-2")	2.13 m (7'-2")	h ₂	1.6 m (5'-3")	1.79 m (5'-10 1/2")
v ₃	1.37 m (5'-0")	1.98 m (7'-0")	h ₃	1.6 m (5'-3")	2.29 m (7'-6")
v ₄	1.22 m (4'-9")	1.83 m (6'-9")	h ₄	1.78 m (5'-10")	2.01 m (6'-7")
v ₅	1.07 m (3'-6")	1.68 m (5'-6")	h ₅	1.78 m (5'-10")	2.54 m (8'-4")
v ₆	0.92 m (3'-0")	1.53 m (5'-0")	h ₆	1.86 m (6'-5")	2.18 m (7'-2")
v ₇	0.61 m (2'-0")	1.22 m (4'-0")	h ₇	1.96 m (6'-5")	2.83 m (9'-3 1/2")

DIMENSIONS AND QUANTITIES

DESIGN NO.	NOMINAL INSIDE DIAM. OF PIPE	SLOPE of FILL	DIMENSIONS						Concrete 2 End Secs. m ³ (cu. yds.)	Reinf. Bcrs 2 End Secs. kg (lbs.)
			A	B	C	D	E	F		
D1.05 -1/2 (D42-1/2)	1050 (42)	1:1/2	1.01 m (3'-4")	660 (26)	1.33 m (4'-4 1/2")	1.48 m (4'-10")	3.63 m (11'-10 1/2")	1.52 m (5'-0")	3.7 (4.8)	180 (330)
D1.05 -2 (D42-2)	1050 (42)	1:2	1.35 m (4'-5")	660 (26)	1.33 m (4'-4 1/2")	1.48 m (4'-10")	4.29 m (14'-0 1/2")	1.99 m (6'-6 1/2")	4.7 (6.2)	220 (400)
D1.2 -1/2 (D48-1/2)	1200 (48)	1:1/2	1.14 m (3'-9")	740 (29)	1.5 m (4'-11")	1.65 m (5'-5")	4.05 m (13'-3 1/2")	1.7 m (5'-7")	4.4 (5.8)	200 (360)
D1.2 -2 (D48-2)	1200 (48)	1:2	1.52 m (5'-0")	740 (29)	1.5 m (4'-11")	1.65 m (5'-5")	4.82 m (15'-9 1/2")	2.24 m (7'-4 1/4")	5.8 (11.0)	250 (850)
D1.35 -1/2 (D54-1/2)	1350 (54)	1:1/2	1.27 m (4'-2")	815 (32)	1.66 m (5'-5 1/2")	1.83 m (6'-0")	4.49 m (14'-8 1/2")	1.88 m (6'-2")	5.2 (6.8)	240 (430)
D1.35 -2 (D54-2)	1350 (54)	1:2	1.7 m (5'-7")	815 (32)	1.66 m (5'-5 1/2")	1.83 m (6'-0")	5.35 m (17'-6 1/2")	2.49 m (8'-2")	7.0 (9.2)	310 (550)
D1.5 -1/2 (D60-1/2)	1500 (60)	1:1/2	1.4 m (4'-7")	890 (35)	1.83 m (6'-0")	2.0 m (6'-7")	4.91 m (16'-1 1/2")	2.06 m (6'-9")	6.1 (8.0)	280 (490)
D1.5 -2 (D60-2)	1500 (60)	1:2	1.88 m (6'-2")	890 (35)	1.83 m (6'-0")	2.0 m (6'-7")	5.88 m (19'-3 1/2")	2.74 m (9'-0")	8.3 (10.8)	350 (630)



BARS v to v₇



BARS - h to h₇



REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		CAST-IN-PLACE REINFORCED CONCRETE END SECTIONS 48"
SCALE: VERT. HORIZ.	DATE	DRAWN BY CHECKED BY
	9/13/2006	