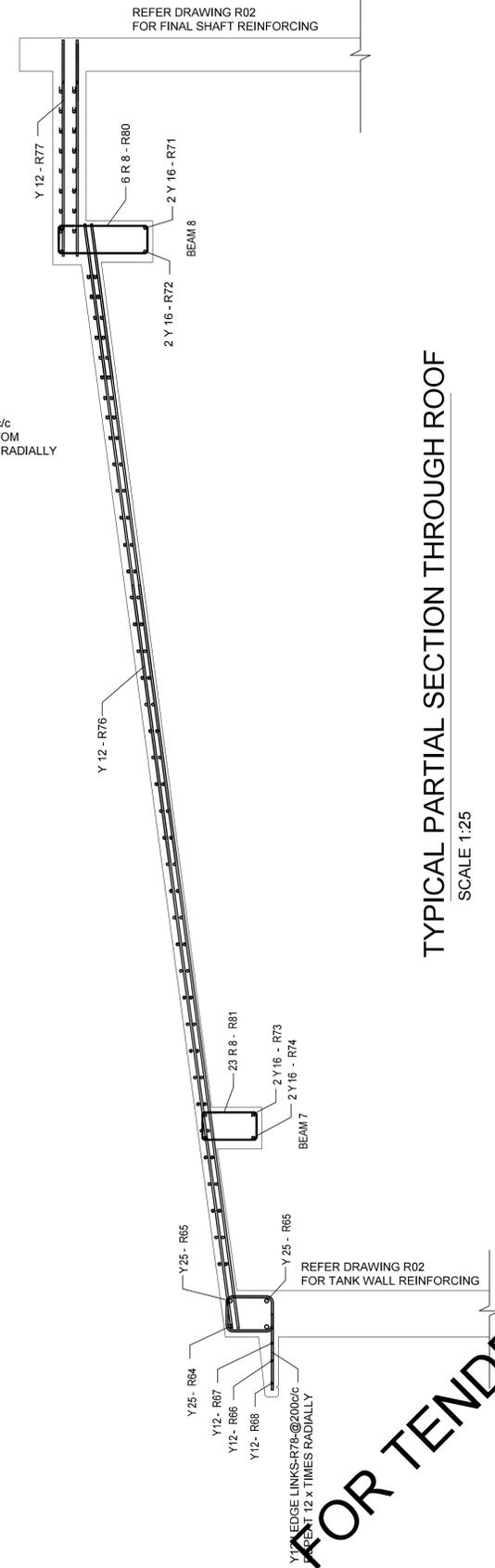


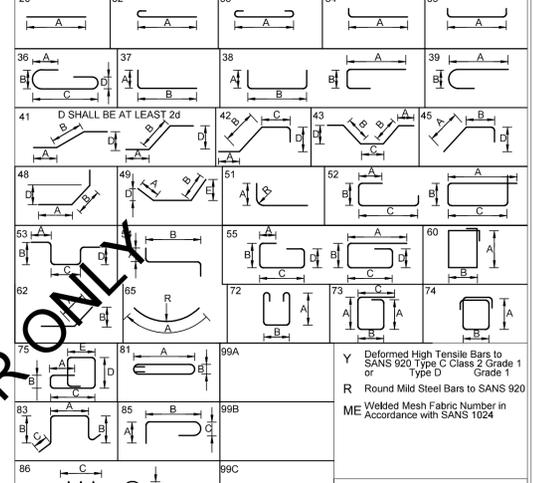
TANK ROOF REINFORCING LAYOUT  
SCALE 1:50



TYPICAL PARTIAL SECTION THROUGH ROOF  
SCALE 1:25

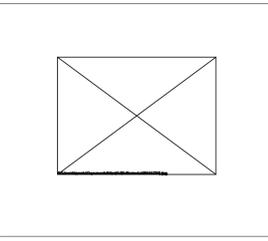
TANK ROOF	Reinforcing bending dimensions for shape codes (SANS 282)												
	Type	Mark	No	Length	Shape	A	B	C	D	E	r	Mass each	All
Y12	R77	240	1600	20	1600							1.4	341.0
Y12	R75	288	5620	20	5628							5.0	1437.4
Y12	R76	286	8350	20	8358							7.4	2120.7
Y12	R79	2	8360	20	8360							7.4	14.8
Y16	R71	24	2310	49	519	519		276	276			3.6	87.5
Y16	R72	24	2340	49	485	485		259	259			3.7	88.7
Y16	R73	24	5760	49	519	519		276	276			9.1	218.3
Y16	R74	24	5780	49	485	485		259	259			9.1	219.0
R 8	R81	276	1420	60	415	220						0.6	154.8
R 8	R80	72	1940	60	675	220						0.8	55.2
Y12	R67	6	11830	65	10770							10.5	63.0
Y12	R66	6	11980	65	10900							10.6	63.8
Y12	R68	6	12160	65	11070							10.8	64.8
Y16	R55	12	3540	65	2798							5.6	67.1
Y16	R27	12	3690	65	2940							5.8	69.9
Y16	R54	12	3840	65	3091							6.1	72.8
Y16	R26	12	4000	65	3240							6.3	75.8
Y16	R53	12	4160	65	3378							6.6	78.8
Y16	R25	12	4310	65	3540							6.8	81.7
Y16	R52	12	4470	65	3680							7.1	84.7
Y16	R24	12	4630	65	3840							7.3	87.7
Y16	R51	12	4800	65	3998							7.6	90.9
Y16	R23	12	4990	65	4190							7.9	94.5
Y16	R63	4	5000	65	1390							7.9	31.6
Y16	R50	12	5200	65	4375							8.2	98.5
Y16	R22	12	5400	65	4585							8.5	102.3
Y16	R62	4	5470	65	1540							8.6	34.5
Y16	R49	12	5620	65	4778							8.9	106.5
Y16	R21	12	5830	65	4990							9.2	110.5
Y16	R61	4	5940	65	1690							9.4	37.5
Y16	R48	12	6040	65	5174							9.5	114.4
Y16	R20	12	6230	65	5383							9.8	118.0
Y16	R60	4	6410	65	1840							10.1	40.5
Y16	R47	12	6460	65	5574							10.2	122.4
Y16	R19	12	6670	65	5790							10.5	126.4
Y16	R46	12	6880	65	5990							10.9	130.4
Y16	R59	4	6880	65	1990							10.9	43.5
Y16	R18	12	7090	65	6190							11.2	134.3
Y16	R45	12	7300	65	6390							11.5	138.3
Y16	R58	4	7350	65	2140							11.6	46.4
Y16	R17	12	7510	65	6590							11.9	142.3
Y16	R44	12	7720	65	6790							12.2	146.3
Y16	R57	4	7820	65	2290							12.3	49.4
Y16	R16	12	7930	65	6990							12.5	150.3
Y16	R43	12	8130	65	7177							12.8	154.0
Y16	R56	4	8290	65	2440							13.1	52.4
Y16	R15	12	8340	65	7390							13.2	158.0
Y16	R42	12	8550	65	7573							13.5	162.0
Y16	R14	12	8760	65	7790							13.8	166.0
Y16	R41	12	8970	65	7990							14.2	170.0
Y16	R13	12	9180	65	8190							14.5	173.9
Y16	R40	12	9390	65	8390							14.8	177.9
Y16	R12	12	9600	65	8590							15.2	181.9
Y16	R39	12	9810	65	8790							15.5	185.9
Y16	R11	12	10020	65	8990							15.8	189.9
Y16	R38	12	10230	65	9113							16.2	193.8
Y16	R10	12	10440	65	9390							16.5	197.8
Y16	R37	12	10650	65	9590							16.8	201.8
Y16	R9	12	10860	65	9790							17.1	205.8
Y16	R36	12	11070	65	9990							17.5	209.8
Y16	R8	12	11280	65	10190							17.8	213.7
Y25	R65	12	11510	65	10198							44.4	532.3
Y25	R64	12	11700	65	10585							45.1	541.1
Y12	R78	360	1680	73	353	270						1.5	537.1

Total of 2174 bars with a mass of 12362.6 kg per cast unit.



NOTES:  
 1) ALL CONCRETE TO BE 35MPa  
 2) MIN COVER TO REINFORCING = 40mm UNLESS NOTED OTHERWISE  
 3) DRAWING TO BE READ IN CONJUNCTION WITH CONCRETE LAYOUTS  
 4) LONGITUDINAL BARS TO HAVE LAP LENGTHS NOT LESS THAN 40D  
 5) ALL STEEL TO BE FIXED ON SITE  
 6) NO CONCRETE TO BE POURED UNTIL APPROVED BY THE ENGINEER  
 7) BACKFILLING TO BE COMPACTED 150mm MAX. PER LAYER

CONSULTING ENGINEERS TRIM CONSULTING ENGINEERS LEGNUM PARK BUILDING WATER MELON STREET POLOKWANE	DESIGNED	K.K.	10-06-2017
	DRAWN	J.P.	10-06-2017
CLIENT JOBURG WATER 17 HARRISON STREET	CHECKED	K.K.	10-06-2017
	APPROVED BY:	SIGNATURE	DATE
	ECSA REG. No.		
	CHECKED		
		SIGNATURE	DATE



17 HARRISON STREET  
MARSHALLTOWN  
2107  
  
TEL: (011) 688-1400  
FAX: (011) 688-1529

FOREST HILL WATER SUPPLY  
NEW WATER TOWER & PUMP STATION  
  
TANK ROOF SLAB  
REINFORCING LAYOUT

SURVEY INFORMATION		APPROVAL BY JW DEPOT		SCALE	AMENDMENTS	
PROJECT SURVEYOR:		CHECKED:		1:50:1:25	REV:	
DATE:		APPROVED BY:				
		SIGNATURE	DATE			
CCTV INFORMATION		APPROVAL BY JW PLANNING			DATE:	
CCTV COMPANY:		CHECKED:				
DATE:		APPROVED BY:				
		SIGNATURE	DATE			

JW14402 R05 - 0  
 CONTRACT No. DRAWING No. REV.  
 A1 SHEET 5 OF 5  
 ORIGINAL PAGE SIZE  
 FILE No.