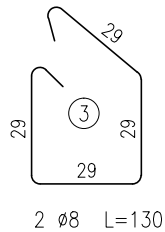
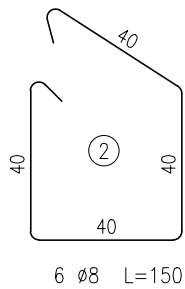
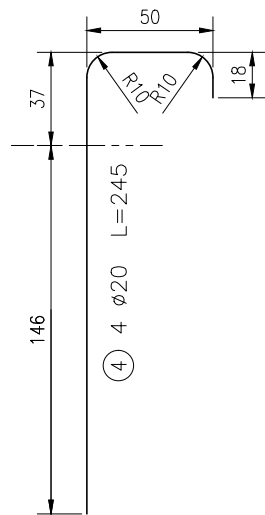
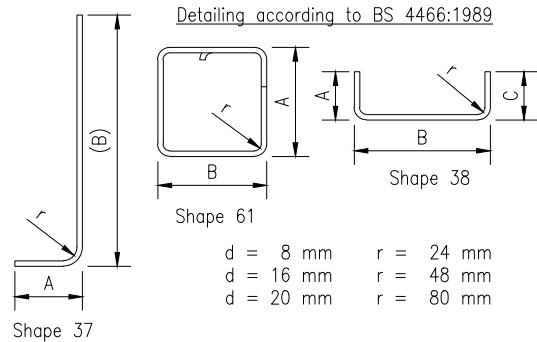
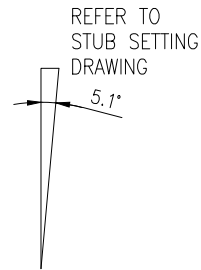
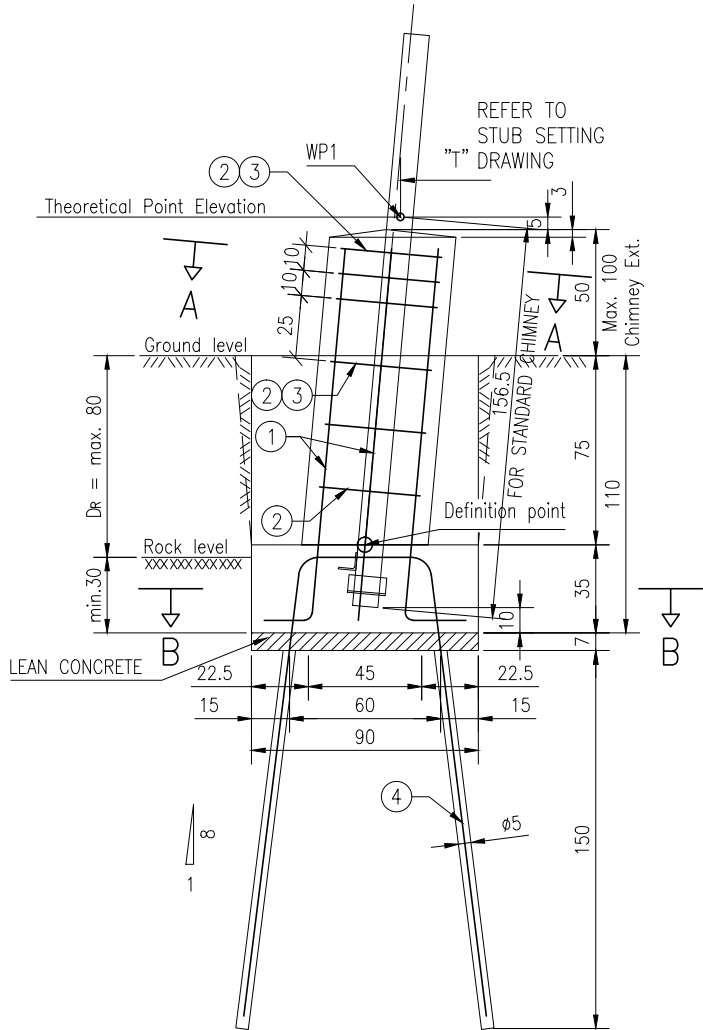
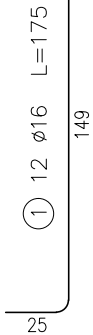
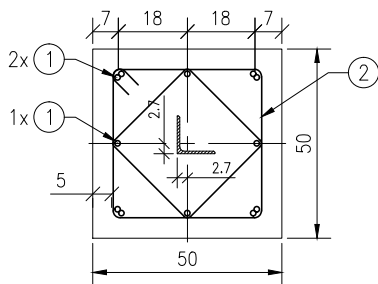


BASE WIDTH [mm]		
TOWER TYPE	BODY EXT.	T
L	+0	4230
	+3	4770
	+6	5310



Section A-A
Scale 1:20



BAR SCHEDULE – STANDARD CHIMNEY

Member	Bar mark	Type and size	No.of bars	Length of each bar mm	Shape code	A mm	B mm	C mm	D mm	E/R mm
Chimney	1	X16	12	1750	37	250	1490	–	–	–
Chimney	2	X8	6	1700	61	400	400	–	–	–
Chimney	3	X8	2	1300	61	290	290	–	–	–
Anchors	4	X20	4	2450	–	1830	500	180	–	100
SUMMARY OF MATERIALS AND WORKS (ONE LEG)						ø20	ø16	ø8		
Total length per dia. :						m	9.8	21.0	12.8	
Unit weight of reinforcing steel :						kg	2.467	1.579	0.395	
Total weight of reinforcing steel (per dia) :						kg	24.2	33.2	5.1	
Total weight of reinforcement :									62.5	Kg
Excavation :						0.948 m³	Concrete :		0.593 m³	
Backfilling :						0.476 m³	Blinding :		0.057 m³	
							Mortar :		0.0099 m³	

BAR SCHEDULE – EXTENDED CHIMNEY (+50cm)

Member	Bar mark	Type and size	No.of bars	Length of each bar mm	Shape code	A mm	B mm	C mm	D mm	E/R mm
Chimney	1	X16	12	2250	37	250	1990	–	–	–
Chimney	2	X8	8	1700	61	400	400	–	–	–
Chimney	3	X8	3	1300	61	290	290	–	–	–
Pad	4	X20	4	2450	–	1830	500	180	–	100
SUMMARY OF MATERIALS AND WORKS (ONE LEG)						ø20	ø16	ø8		
Total length per dia. :						m	9.8	27.0	17.5	
Unit weight of reinforcing steel :						kg	2.467	1.579	0.395	
Total weight of reinforcing steel (per dia) :						kg	24.2	42.6	6.9	
Total weight of reinforcement :									73.7	Kg
Excavation :						0.948 m³	Concrete :		0.720 m³	
Backfilling :						0.476 m³	Blinding :		0.057 m³	
							Mortar :		0.0099 m³	

NOTES:

GENERAL NOTES:

- DIMENSIONS IN cm OR AS SPECIFIED.
- STUB ANGLE MODIFIED FROM DRAWING NO. KC06.0040_OHL_STR_22-05-02 sh.016.
- DIMENSION "T" TO BE CHECKED WITH TOWER'S ERECTION DRAWINGS.
- IF ROCK LEVEL IS LOWER THAN $D_R = 80$ cm THE TOTAL DEPTH OF THE FOUNDATION SHALL BE INCREASED TO ENSURE THE MINIMUM 30cm EMBEDMENT OF THE PAD IN ROCK.

FOUNDATION DESIGN PARAMETERS:

- CONSIDERED WATER LEVEL IS ALWAYS BELOW FOUNDATION.
- SOIL TYPE ROCK:
 - SOIL UNIT WEIGHT: 1900 kg/m³.
 - ULTIMATE BEARING CAPACITY: 30 daN/cm².
 - ALLOWABLE BEARING CAPACITY: 10 daN/cm².
- LOADING AS SHOWN IN TOWER DESIGN CALCULATION.
- IF ANY OF THE ABOVE ASSUMPTIONS ARE FOUND TO BE INVALID IMMEDIATELY CEASE CONSTRUCTION AND CONTACT THE ENGINEER.

CONCRETE MATERIAL:

- MINIMUM 28 DAYS COMPRESSIVE STRENGTH: 25 N/mm².
- REINFORCED CONCRETE DESIGN, BAR SCHEDULE, DETAILING AND EXTENSIONS OF REBARS WILL BE ACCORDING TO BS 8110 AND BS 4466. REBAR EXTENSION BY OVERLAPPING ON 50 DIA.
- CONCRETE COVER: 5 cm.
- LEAN CONCRETE SHALL HAVE THE FOLLOWING RATIO OF CEMENT : FINE AGGREGATE : COARSE AGGREGATE = 1 : 3 : 5, MEASURED BY VOLUME.

REINFORCING STEEL MATERIAL:

- ϕ = REBAR DIAMETER IN mm.
- REINFORCED CONCRETE DESIGN, BAR SCHEDULE, DETAILING AND EXTENSIONS OF REBARS WILL BE ACCORDING TO BS 8110 AND BS 4466. REBAR EXTENSION BY OVERLAPPING ON 50 DIA.
- MAIN REINFORCEMENT SHALL BE DEFORMED BARS OF HIGH TENSILE STEEL WITH MINIMUM YIELD STRENGTH: $F_y=500$ N/mm².
- LINKS SHALL BE OF PLAIN BARS OF MILD STEEL WITH MINIMUM YIELD STRENGTH: $F_y=240$ N/mm².

02	27/05/13	Design updated.	PG	SI	VR
01	21/05/13	First issue;	PG	SI	VR
REV.	dd/mm/yy	REVISION DESCRIPTION	DRAWN	CHECKED	APPROVED
 CG Holdings Belgium NV Systems Division Antwerpsesteenweg 167, B-2800 Mechelen Tel. : +32(0)15/283 333 Fax : +32(0)15/283 491 www.cgglobal.com			CLIENT: MINISTRY OF ENERGY - REPUBLIC OF KENYA		
ISO Symbol:  SCALE: 1/30 LAYOUT: A3			DRAWING TITLE : 132 kV OHL Nanyuki - Isiolo - Meru Rock Anchor Foundation Type LFR for Tower Type L		
THIS DRAWING SHALL NOT BE COPIED, REPRODUCED, TRANSMITTED OR GRANTED TO THIRD PARTIES WITHOUT OUR PRIOR AGREEMENT			DRAWING No.: 100008-L0-DG-CW05		